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551.48 UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

ANNUAL PEAK DISCHARGES FROM SMALL DRAINAGE AREAS IN MONTANA

Through September 1968



Prepared in cooperation with the

MONTANA STATE HIGHWAY COMMISSION

and

U. S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

Helena, Montana March 1969

930 East Lyndale Avenue Helena, Montana 52001



UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

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by

M. V. Johnson and R. J. Omang

Prepared in cooperation
with the
Montana State Highway Commission
and the
U. S. Department of Commerce, Bureau of Public Roads

Helena, Montana 1969 Digitized by the Internet Archive in 2013

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ANNUAL PEAK DISCHARGES FROM SMALL DRAINAGE AREAS IN MONTANA THROUGH SEPTEMBER 1968

by
M. V. Johnson
and
R. J. Omang

INTRODUCTION

A cooperative program to investigate the magnitude and frequency of floods from small drainage areas in Montana was begun July 1, 1955. The original agreement was for the establishment of and collection of data at 45 crest-stage gaging stations. The program was expanded to 138 gaging stations in 1959 and to 202 gaging stations in 1963. About 200 stations were in operation from 1963 to 1967, and 185 in 1968. The investigation is financed through an agreement between the Montana State Highway Commission and the U. S. Geological Survey which provides for the full reimbursement of appropriate costs by the Highway Commission Planning Survey. The U. S. Bureau of Public Roads cooperates in the program by reimbursing the Highway Commission for approximately three-fourths of the total program costs.

This is the fourteenth annual report prepared to inform the cooperators and other interested parties of the status

of the program. The report is primarily a tabulation, by water year, of the annual peak stage and discharge at each crest-stage gaging station. It also summarizes the activities and progress made during the 1968 water year.

Data on outstanding flood events and streamflow at sites where crest-stage gages are not operated are furnished on request to Mr. Donald D. Gruel, Hydrologist, Montana State Highway Commission.

PURPOSE OF THE PROGRAM

The primary purpose of the program is to define the magnitude and frequency of floods, on a regional basis, for Montana. Hydrologic data on small drainage areas are being collected to supplement the data obtained from the established cooperative stream-gaging program of the Geological Survey. The ultimate objective of the program is to obtain sufficient information on the magnitude and frequency of floods from various sizes and types of drainage basins to design appropriate highway drainage structures.

PROGRAM OPERATION

Equipment at a crest-stage gaging station consists of one or more standard Geological Survey crest-stage gages.

These gages are designed to record the maximum stage reached by the water surface at the gaging station site. Many crest-

stage gaging stations are located at highway culverts because the culvert can be used as a convenient structure for measuring peak discharge. Given the shape of the natural channel in the vicinity of the culvert, the culvert geometry, and the water-surface profile upstream and downstream from the culvert at the time of the peak flow, the peak discharge can be computed. The water-surface profile, obtained from marks recorded on the crest-stage gages, is usually supplemented by nearby high-water marks along the stream channel.

Eight continuous-record gaging stations, formerly operated through other cooperative agreements, are currently operated for this program. These stations are an important supplement to the crest-stage network because they provide data for establishing the dates of peaks at crest-stage sites and comparison between the magnitude of peaks recorded during the present period of data collection and peaks recorded prior to the start of the program. Climatological data published by the U. S. Weather Bureau are also used to determine the dates of occurrence of peak discharges.

Since 1955, peak-flow data have been obtained for various periods at 21¹+ different sites. During the 1968 water year 185 gages were in operation. Several of the gages were destroyed by road construction or damaged by floods, but were repaired or replaced. The approximate location and the status

of each station is shown on figure 1.

The gaging stations are located to provide information on drainage areas that range in size from less than one square mile to several hundred square miles and represent various hydrologic conditions. The network currently has 24 stations with drainage areas of less than one square mile, 95 stations from 1 to 10 square miles, 50 stations from 10 to 50 square miles, and 16 stations with more than 50 square miles.

In addition to the stations operated in cooperation with the Highway Commission, the Geological Survey maintains 14 crest-stage gaging stations in eastern Montana in cooperation with the Montana State Water Resources Board.

These stations are included in this report.

PROGRAM ACTIVITIES, 1968 WATER YEAR

Operation of the crest-stage gages for the purpose of recording peak stages continued to be the primary phase of work. To insure proper gage operation, periodic visits were made to service the gages and record the peak stages that had occurred between visits. Changes in channel, culvert, and control conditions were also noted. Additional visits were necessary during the spring snowmelt period to determine the effects of backwater caused by snow and ice

in the stream channels. During the 1968 water year, peak flows of relatively large magnitude occurred in only a few scattered areas. The previous maximum of record was equaled or exceeded at 8 crest-stage gage sites. Five transit-stadia surveys were made for indirect determination of peak discharges. The stage-discharge relation at most sites is now fairly well defined. This year's additional definition of ratings resulted in revision of the maximum flow for 15 annual peaks and the determination of 2 peaks that previously were listed as "not determined." An indirect measurement of flow was made to determine the magnitude of a major flood at the Highway 230 crossing on Arrow Creek.

A level circuit between the gage and several semi-permanent reference marks was run at each gage to insure that all flood peaks at a station can be adjusted to the same datum although a gage may be disturbed or destroyed.

PROGRAM PLANS, 1969 WATER YEAR

The collection of peak-flow data will continue as the principal activity during the year. Routine inspections, with special visits when necessary, will be made as in previous years. The 185 stations presently in the crest-stage gage network will be continued in operation. A report summarizing

peak-flow data collected through September 30, 1969, is planned for publication by March 1970.

The 14 crest-stage stations presently operated in cooperation with the Montana Water Resources Board will be continued. Information on floods at points where gaging stations are not operated will be obtained where significant damage is reported or where the peak discharge may be hydrologically significant. The resources of the Geological Survey do not permit coverage of all reported events, and it is acknowledged that some may escape attention.

PRESENTATION OF DATA

All stations, active and discontinued, are described on pages 9 to 132 in a downstream order. Those in the Missouri River basin (Part 6) are listed first and those in the Columbia River basin (Part 12) follow. Each station description includes the name, permanent station number (in parentheses following name), location, drainage area, period of record, type of gage, and altitude of gage. Following the description, the annual maximum gage height (or stage) and discharge (when available) is listed for each water year of record. The date given for each annual peak is as near the actual day on which the peak flow occurred as can be determined from available data.

The annual peak discharges shown are preliminary figures and are subject to revision. If a peak discharge is listed as "not determined" it means that a peak discharge will be determined when the stage-discharge relation has been defined by discharge measurements. A listing of "unknown" means a reliable figure of peak discharge will never be available.



STATION DATA

MISSOURI RIVER BASIN

1. Long Creek near Lakeview, Mont. (6-0114)

Location. -- Lat 44°43', long 112°04', in SE1 sec.10, T.13 S., R.14 W., at bridge on county road, 15 miles northwest of Lakeview.

<u>Drainage area.--33.9</u> sq mi. <u>Records available.--May 1959</u> to September 1967 (discontinued).

Gage .-- Crest-stage gage installed May 12, 1959. Altitude of gage is 6.800 ft (from topographic map).

Anr	nual maximum	<u>data</u>		
	Water year	Date	Gage height (ft)	Discharge (cfs)
	1960	Apr. 6, 1960	3.17	235
	1961	Apr. 17, 1961	1.00	48
	1962	Apr. 27, 1962	3.42	265
	1963	June 14, 1963	1.54	83
	1964	May 14, 1964	2.72	1.96
	1965	Apr. 29, 1965	2.48	178
	1966	Apr. 11. 1966	1.86	128
	1967	May 11, 1967	2.23	11+0
		•		

2. Red Rock River tributary near Monida, Mont. (6-0119)

Location .-- Lat 44°35', long 112°15', in SE4 sec. 30, T.14 S., R.5 W., at county road, 3 miles east of Monida.

Drainage area. -- 1.00 sq mi.

Records available. -- May 1959 to September 1967 (discontinued). Gage. -- Crest-stage gage installed May 12, 1959. Altitude of gage is 6,750 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	Apr. 6, 1960	Great Speed	a 3
1961	Apr. 17, 1961	b 1.08	a 2
1962	Apr. 19, 1962	b 2.74	a 15
1963	April 1963	01	1
1964	Apr. 29, 1964	b 3.20	a 1.0
1965	Apr. 24, 1965	b 3.76	a 2
1966	Apr. 12, 1966	b 3.58	a 5
1967	May 11, 1967	b 3.10	a 5

a About.

b Backwater from ice.

3. Traux Creek near Lima, Mont. (6-0132)

Location. -- Lat 44°37', long 112°34', in NW sec. 15, T.14 S., R.8 W., at culvert 300 ft upstream from Interstate Highway 15 and U. S. Highway 91, 2 miles southeast of Lima.

<u>Drainage area</u>.--2.77 sq mi. <u>Records available</u>.--May 1959 to

Gage.--Crest-stage gage installed May 12, 1959. Altitude of gage is 6,350 ft (from topographic map).

Annual maximum	<u>aata</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	March 1960	0.24	Not determined
1961	Mar. 14, 1961	•35	Not determined
1962	Apr. 19, 1962	.85	Not determined
1963	March 1963		<1
1964	April 1964	.06	Not determined
1965	Apr. 1, 1965	•75	Not determined
1966	Mar. 29, 1966	71	<1
1967	July 30, 1967	59	<1
1968	Apr. 11, 1968	b63	<i>i</i> .1
	•		

4. Muddy Creek near Dell, Mont. (6-0134)

Location .-- Lat 44°38', long 112°48', in SW sec.3, T.14 S., R.10 W., half a mile upstream from mouth, 8 miles southwest of Dell. Drainage area .-- 62.7 sq mi.

Records available .-- May 1959 to

Gage .-- Crest-stage gage installed May 12, 1959. Altitude of gage is 6,570 ft (from topographic map).

Annual maximum	data		•
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	July 6, 1960	2.70	85
1961	Apr. 3, 1961	2.47	68
1962	Apr. 2, 1962	3.72	197
1963	June 7, 1963	1.22	14
1964	May 15, 1964	2.47	68
1965	Apr. 1, 1965	3.83	112
1966	Mar. 30, 1966	b 2.70	a 140
1967	June 11, 1967	1.97	25
1968	Sept. 20, 1968	1.59	17

a About.

b Backwater from ice.

5. Big Sheep Creek below Muddy Creek, near Dell, Mont. (6-0135) (formerly published as Sheep Creek below Muddy Creek, near Dell)

Location. -- Lat $44^{\circ}39'$, long $112^{\circ}47'$, in $SE_{\frac{1}{4}}$ sec. 35, T.13 S., R.10 W., $6\frac{1}{2}$ miles southwest of Dell.

Drainage area. -- 280 sq mi. At site in 1936, 293 sq mi.

Records available. -- April to September 1936 and May 1946 to September 1953 (continuous record) Tune 1950 to

ber 1953 (continuous record), June 1959 to Gage .-- Water-stage recorder re-installed June 24, 1959. Altitude

of gage is 6,530 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
Annual maximum Water year 1936 1946 1947 1948 1949 1950 1951 1952 1953 1960 1961 1962 1963	Date May 28, 1946 June 9, 1947 Aug. 1, 1948 Apr. 12, 1949 Apr. 1, 1950 Aug. 4, 1951 Apr. 18, 1952 June 2, 1953 Mar. 26, 1960 Apr. 4, 1961 Apr. 2, 1962	5.5 ¹ + 5.66 5.49 6.02 5.68 4.82 7.22 5.44 3.98 4.83	Discharge (cfs) Unknown 379 349 369 477 406 234 909 313 168 84 236
1963 1964 1965 1966	June 15, 1963 June 10, 1964 Apr. 21, 1965 Apr. 2, 1966	5.38 6.06 5. ¹ +3 159	343 491 354 195
1967 1968	June 11, 1967 June 9, 1968	5°.48 5°.89	365 455

6. Sage Creek tributary near Dell, Mont. (6-0139)

Location. -- Lat 44.044, long 112°37, in SE2 sec.31, T.12 S., R.8W., at bridge on county road, 4 miles east of Dell.

Drainage area. -- 0.43 sq mi.

Records available. -- May 1959 to September 1967 (discontinued).

Gage. -- Crest-stage gage installed May 12, 1959. Altitude of gage is 6,300 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	March 1960	b 0.13	<1
1961	September 1961		<1
1962	Apr. 2, 1962	b.92	<1
1963	March 1963		<1
1964	April 1964	ъ.50	<1
1965	April 1965	b .72	<1
1966			(c)
1967	July 18, 1967	1.05	<1

b Backwater from ice.

c No evidence of flow during year.

Location. -- Lat 45°06'40", long 112°48'00" in SW4NW4 sec.26, T.8 S., R.10 W., on left bank 14 miles upstream from mouth and 11 miles southwest of Dillon.

Drainage area. -- 348 sq mi.

Records available. -- March 1921 to September 1929, April 1930 to

June 1933, October 1945 to December 1953, March 1955 to September 1958, October 1959 to September 1961 (continuous record),

October 1961 to

Gage. -- Crest-stage gage installed Oct. 11, 1961. Water-stage recorder, chain or staff gages prior to October 1961. Altitude

of gage is 5,350 ft (from topographic map).

Annual maximum	data		
Water year 1921 1922 1923 1924 1925 1926 1927 1928 1929	Date June 10, 1921 May 28, 1922 June 23, 1923 Apr. 13, 1924 June 5, 1925 July 8, 1926 June 12, 1927 May 13, 1928 June 18, 1929	Gage height (ft) 6.60 6.48 5.68 5.05 6.52 5.52 6.2 6.10 5.45	Discharge (cfs) d 516 d 543 d 283 d 120 d 557 d 197 d 355 d 327 d 172 Unknown
1931 1932	Apr. 4, 1931 June 7, 1932	5.02 6.06	d 85 d 322
1933 1947 1948 1949 1951 1952 1953 1954 1955 1956 1961 1962	May 29, 1946 Mar. 17, 1947 June 4, 1948 June 2, 1949 June 23, 1950 Mar. 22, 1951 May 16, 1952 June 3, 1953 June 30, 1955 Mar. 24, 1956 May 21, 1957 June 5, 1958 Mar. 25, 1960 June 14, 1961 Mar. 27, 1962	2.78 4.44 1.51 3.46 3.20 4.11 3.20 4.51 3.47 3.75 4.16 4.06 3.14 3.83	Unknown 160 640 719 324 252 559 257 719 Unknown 328 1,870 433 579 Unknown 539 252 450
1963 1964 1965 1966 1967 1968	Feb. 3, 1963 June 9, 1964 July 1, 1965 Mar. 30, 1966 June 11, 1967 June 9, 1968	b 4.61 4.16 4.82 3.02 5.17 3.75	465 539 635 180 730 435

b Backwater from ice. d Maximum observed.

8. Beaverhead River tributary near Dillon, Mont. (6-0169)

Location. --Lat 45°13', long 112°40', in SE¹/₄ sec.15, T.7 S., R.9 W., 250 ft upstream from settling basin, 2 miles west of Dillon.

Drainage area. --0.62 sq mi.

Records available .-- May 1959 to

Gage. -- Crest-stage gage installed May 11, 1959. Altitude of gage is 5,250 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	Mar. 18, 1960	0.32	a 3
1961			(c)
1962	Feb. 2, 1962	.02	a 2
1963	Feb. 3, 1963	•20	a 11
1964			(c)
1965	Mar. 30, 1965 Sept. 4, 1966	51	.1
1966	Sept. 4, 1966	 ¹ +1	4 •2
1967	June 11, 1967	•37	a 15
1968	February 1968	28	₹ .2
	•		, , -

9. Beaverhead River tributary No. 2 near Dillon, Mont. (6-0182)

Location.--Lat 45°19', long 112°32', in NW\(\frac{1}{4}\) sec.13, T.6 S., R.8 W., at culvert on State Highway 41, 9 miles northeast of Dillon.

Drainage area.--0.40 sq mi.

Records available.--May 1959 to September 1965 (discontinued).

Gage.--Crest-stage gage installed May 7, 1959. Altitude of gage is 4,970 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1958	e June 24, 1958	5.04	170
1959			(c)
1960	Mar. 19, 1960	.41	3
1961	June 12, 1961	•36	2.5
1962			(c)
1963	Sept. 2, 1963	. 30 ′	2
1964	June 27, 1964	•29	2
1965	August 1965	.40	3
	•		

a About.

c No evidence of flow during year.

e Prior to installation of gage; peak discharge computed from highwater marks along highway embankment at culvert.

10. Idaho Creek near Alder, Mont. (6-9198)

Location .-- Lat 45°12', long 112°08', in center sec. 30, T.7 S., R.4 W., at bridge on county road, 9 miles south of Alder. Drainage area. -- 10.8 sq mi.

Records available.--May 1959 to

Gage.--Crest-stage gage installed May 7, 1959. Altitude of gage is
5,420 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	Mar. 27, 1960	b 2.18	a 40
1961	Apr. 4, 1961	.87	13
1962	Apr. 25, 1962	2.30	90
1963	Mar. 22, 1963	1.36	24
1964	July 29, 1964	1.20	17
1965	Mar. 30, 1956	b 3.01	a 60
1966	June 10, 1966	.80	8
1967	June 15, 1967	1.34	9
1968	June 10, 1968	1.59	12
	•		

11. Moose Creek near Divide, Mont. (6-0253)

Location. -- Lat 45°43', long 112°42', in NW sec. 34, T.1 S., R.9 W., at culverts on Interstate Highway 15 and U. S. Highway 91, 3½ miles southeast of Divide.

Drainage area. -- 41.4 sq mi. Records available. -- May 1959 to

Gage .-- Crest-stage gage installed May 11, 1959. Altitude of gage is 5,430 ft (from topographic map).
Annual maximum data.--

	a a a a a		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1960	May 7, 1960	1.62	90
1961	Apr. 4, 1961	•79	39
1962	Apr. 19, 1962	1.89	108
1963	May 22, 1963	2.66	165
1964	June 8, 1964	1.41	77
1965	June 17, 1965	2.06	122
1966	Mar. 30, 1966	1.20	64
1967	June 11, 1967	2.60	180
1968	June 1, 1968	1.59	118
	•	• •	

a About.

b Backwater from ice.

Location. -- Lat 45°46', long 112°15', in NW sec. 8, T.1 S., R.5 W., at bridge on county road, 6 miles north of Silverstar.

Drainage area. -- 39.5 sq mi. Records available. -- May 1959 to

Gage. -- Crest-stage gage installed May 7, 1959. Altitude of gage is

4,790 ft (from topographic map).

Annual maximum	<u>aata</u>		•
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	June 6, 1959	1.15	166
1960	May 13, 1960	.91	105
1961	Apr. 4, 1961	1.13	160
1962	June 3, 1962	•95	115
1963	June 11, 1963	1.16	141
1964	June 19, 1964	b 1.49	150
1965	June 16, 1965	1.74	220
1966	May 2, 1966	.67	54
1967	June 11, 1967	1.78	228
1968	June 15, 1968	1.22	\ 132

13. Jefferson River tributary near Whitehall, Mont. (6-0302)

Location. -- Lat 45°53', long 112°00', in SE4 sec.32, T.2 N., R.3 W., at culvert on Interstate Highway 90 and U. S. Highway 10, 5 miles east of Whitehall.

Drainage area.--1.85 sq mi.
Records available.--May 1959 to

Gage.--Crest-stage gage installed May 6, 1959. Altitude of gage

is 4,340 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960			(c)
1961	Creat Creat		(c)
1962	Aug. 29, 19	62 a 0.2	3
1963	Feb. 2, 196	3 1.03	17
1964	Aug. 19, 19	64 .97	16
1965	Aug. 22, 19	65 1.21	22
1966			(c)
1967	June 22, 19	67	a 1
1968		-	(c)

a About.

b Backwater from ice or debris.

c No evidence of flow during year.

14. Jefferson River tributary No. 2 near Whitehall, Mont. (6-0303)

Location .-- Lat 45°53', long 111°59', in SE sec. 33, T.2 N., R.3 W., at culvert on State Secondary Highway 281, 6 miles east of Whitehall.

Drainage area. -- 4.50 sq mi.

Records available. -- October 1957 to

Gage .-- Crest-stage gage installed May 7, 1959. Altitude of gage is 4,400 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1958	e June 24, 1958	4.45	169
1959	e Apr. 6, 1959	2.37	7 1
1960			(c)
1961	Sept. 11, 1961	1.32	34
1962			(c)
1963	Feb. 2, 1963	1.38	39
1964	June 8, 1964	.41	10
1965	Aug. 22, 1965	•30	8
1966		one days	(c)
1967	July 18, 1967	•37	9
1968	Feb. 19, 1968	•37	9
•		<u> </u>	,

15. Sand Creek at Sappington, Mont. (6-0347)

Location. -- Lat 45°47', long lll°45', in SW4 sec.32, T.l N., R.l W., three quarters of a mile southeast of Sappington.

Drainage area. -- 9.44 sq mi.

Records available. -- May 1959 to Gage. -- Crest-stage gage installed May 6, 1959. Altitude of gage is 4,240 ft (from topographic map).

Annual maximum	<u>data</u>	-		
Water year		Date	Gage height (ft)	Discharge (cfs)
1960	Apr.	9, 1960	1.36	50
1961	Aug.	14, 1961	(OG) 2.0	124
1962	Aug.	25, 1962	5.4	2,130
1963	Feb.	3, 1963	2.73	380
1964		then date	===	(c)
1965	Aug.	22, 1965	1.16	105
1966	July	3, 1966	.87	80
1967	•			(c)
1968	Feb.	19, 1968	.43	49

c No evidence of flow during year.

e Prior to installation of gage.

16. Jefferson River tributary No. 3 near Sappington, Mont. (6-0348)

Location. --Lat 45°50', long 111°42', in SW1 sec.14, T.1 N., R.1 W., at culvert on Interstate Highway 90 and U. S. Highway 10, 4 miles northeast of Sappington.

Drainage area.--1.14 sq mi.

Records available .-- May 1959 to

Gage.--Crest-stage gage installed May 6, 1959. Altitude of gage is 4,200 ft (from topographic map).

annual maximum	<u>aata</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	Feb. 1, 1960	0.10	0.1
1961	Aug. 14, 1961	•95	12
1962	Mar. 6, 1962	•65	6
1963	Feb. 2, 1963	b 3.43	a50
1964	<u></u>		(c)
1965	April 1965	.16	<0.5
1966	July 3, 1966	4.09	,96 ·
1967		ton ton	(c)
1968	Feb. 19, 1968	.83	10

17. Jefferson River tributary No. 4 near Three Forks, Mont. (6-0366)

Location. -- Lat 45°54', long 111°37', in SW1 sec.28, T.2 N., R.1 E., at culverts on Interstate Highway 90 and U. S. Highway 10, 3 miles west of Three Forks.

Drainage area. -- 0.53 sq mi. Records available. -- May 1959 to

Gage.--Crest-stage gage installed May 6, 1959. Altitude of gage is 4,140 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960			(c)
1961			(c)
1962	Mar. 6, 1962	b 0.75	a 3
1963	Feb. 2, 1963	•74	a 7
1964	Aug. 19, 1964	.62	a 6
1965	February 1965	.18	a 1.5
1966	July 3, 1966	•73	7
1967	Aug. 5, 1967	.62	a 6
1968	July 7, 1968	1.00	10

a About.

b Backwater from ice.

c No evidence of flow during year.

18. Jefferson River tributary No. 5 near Three Forks, Mont. (6-0367)

Location. -- Lat 45°55', long 111°36', in NEt sec.21, T.2 N., R.1 E., at culvert on State Highway 287, 3 miles west of Three Forks.

Drainage area. -- 3.69 sq mi.
Records available. -- May 1959 to

Gage.--Crest-stage gage installed May 6, 1959. Altitude of gage is 4,120 ft (from topographic map).

Annual maximum	<u>aata</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	come (max	\$100 MIN	(c)
1961	time prop	***	(c)
1962	Mar. 6, 1962	0.61	28
1963	Feb. 2, 1963	.61	28
1964	time time	test test	(c)
1965	Aug. 22, 1965	2.56	1 53
1966	July 3, 1966	000 JOJ-	6
1967		-	(c)
1968	Feb. 19, 1968	.85	39

19. Squaw Creek near Gallatin Gateway, Mont. (6-01+32)

Location. -- Lat 45°26', long lll°13', in SW sec. 34, T.4 S., R.4 E., at private bridge, 10 miles south of Gallatin Gateway.

Drainage area. -- 40.4 sq mi.
Records available. -- May 1959 to

Gage. -- Crest-stage gage installed May 5, 1959. Altitude of gage is 5,400 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	June 7, 1959	2.20	a 4-20
1960	May 12, 1960	1.66	147
1961	May 26, 1961	1.47	200
1962	June 13, 1962	1.34	168
1963	June 15, 1963	1.49	208
1964	June 8, 1964	1.144	195
1965	June 15, 1965	1.87	320
1966	May 6, 1966	1.08	136
1967	May 24, 1967	1.30	222
1968	June 30, 1968	2.02	560

a About.

c No evidence of flow during year.

Location. -- Lat 45°27', long 111°14', in SW sec.28, T.4 S., R.4 E., at culvert on U. S. Highway 191, 10 miles south of Gallatin Gateway.

Drainage area. -- 2.48 sq mi.

Records available .-- May 1959 to

Gage. -- Crest-stage gage installed May 5, 1959. Altitude of gage is 5,340 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	June 7, 1959	1.03	20
1960	May 12, 1960	.69	9
1961	May 26, 1961	•34	6
1962	June 13, 1962	•73	18
1963	May 27, 1963	•38	11
1964	June 8, 1964	1.09	25
1965	June 15, 1965	•66	18
1966	May 6, 1966	•08	5
1967	June 22, 1967	•50	16
1968	June 11, 1968	•93	24

21. Rocky Creek near Bozeman, Mont. (6-0465) (Previously published as East Gallatin River near Bozeman)

Location. -- Lat 45°39', long 110°57', in NE¹/₄ sec.23, T.2 S., R.6 E., 5 miles east of Bozeman.

Drainage area. -- 49.0 sq mi at site 14 miles upstream.

Records available.--November 1951 to September 1953 (continuous record), 1956-57 (miscellaneous measurements only), May 1959 to Gage.--Crest-stage gage installed Sept. 26, 1962. Altitude of gage is 4,980 ft (from topographic map). Records equivalent to those at recorder site 1½ miles upstream (at different datum) used prior to October 1966.

Annual maximum	data		
<u>Water year</u>	Date	Gage height (ft)	Discharge (cfs)
1952	Apr. 19, 1952	4.08	421
1953	June 3, 1953	4.65	608
1959	Apr. 1, 1959	3.9	337
1960	May 8, 1960	3.64	248
1961	May 2, 1961	3.03	90
1962	Apr. 16, 1962	3.42	285
1963	Apr. 27, 1963	4.11	400
1964	May 17, 1964	3.65	212
1965	May 15, 1965	3.83	345
1966	Mar. 31, 1966	b 3.34	a 250
1967	May 8, 1967	1.00	300
1968	May 22, 1968	1.54	415
/			

a About.

b Backwater from ice.

Location. -- Lat 45°39', long 110°56', in NW# sec. 24, T.2 S., R.6 E., at culvert on county road, 5 miles east of Bozeman.

Drainage area. -- 2.33 sq mi.

Records available.--1951-53, miscellaneous measurements of base flow only. May 1959 to

Gage .-- Crest-stage gage installed May 6, 1959. Altitude of gage is

5,040 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	May 13, 1960	1.25	14
1961	May 27, 1961	•03	1
1962	Apr. 24, 1962	.89	9
1963	Apr. 27, 1963	1.16	13
1964	May 17, 1964	•97	10
1965	May 16, 1965	2.10	19
1966	June 10, 1966	•73	7
1967	May 8, 1967	1.81	12
1968	May 22, 1968	2. 44	20

23. Bear Canyon Creek near Bozeman, Mont. (6-0470)

Location. -- Lat $45^{\circ}37'35''$, long $110^{\circ}55'45''$, in $NW_{\frac{1}{4}}$ sec. 36, T.2 S., R.6 E., 6 miles southeast of Bozeman.

Drainage area. -- 17.0 sq mi.

Records available. -- November 1951 to September 1953 (continuous record), May 1959 to

Gage. -- Water-stage recorder re-installed May 5, 1959. Datum of gage is 5,183.4 ft above mean sea level, datum of 1929 (unadjusted).

Anı	nual maximum	data		
	Water year	Date	Gage height (ft)	Discharge (cfs)
	1952	May 26, 1952	2.84	149
	1953	June 3, 1953	3.40	450
	1959	May 1, 1959	2.2	a 150
	1960	May 12, 1960	2.62	202
	1961	May 22, 1961	1.77	4.6
	1962	July 14, 1962	2.74	175
	1963	May 9, 1963	2.43	110
	1964	May 20, 1964	2.56	134
	1965	May 16, 1965	2.61	145
	1966	May 10, 1966	2.26	82
	1967	June 7, 1967	2.45	162
	1968	May 22, 1968	2.53	128
	= 2 2 6	June 7, 1967		

24. Castle Creek tributary near Ringling, Mont. (6-0562)

Location. -- Lat 46°22', long 111°06', in NE sec.21, T.7 N., R.5 E., at culverts on U. S. Highway 12, 15 miles northwest of Ringling. Drainage area. -- 2.59 sq mi.

Records available. -- May 1959 to Gage. -- Crest-stage gage installed May 22, 1959. Altitude of gage is 5,400 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	May 4, 1960	1.45	23
1961	Apr. 25, 1961	.91	12
1962	Apr. 19, 1962	2.74	28
1963	Feb. 4, 1963	.81	11
1964	May 1, 1964	2.99	35
1965	May 1, 1965	2.88	27
1966	May 3, 1966	1.03	12
1967	May 23, 1967	3.01	35
1968	June 7, 1968	1.19	13

25. Cabin Creek near Townsend, Mont. (6-0563)

Location .-- Lat 46°20', long 111°13', in NW sec. 27, T.7 N., R.4 E., 100 ft upstream from mouth, 14 miles east of Townsend.

Drainage area. -- 12.6 sq mi.

Records available .-- May 1959 to

Gage .-- Crest-stage gage installed May 22, 1959. Altitude of gage is 4,900 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	June 4, 1960	2.00	Not determined
1961	June 22, 1961	.14	2
1962	May 22, 1962	•37	8
1963	June 21, 1963	53	13
1964	May 19, 1964	1,37	38
1965	June 2, 1965	. 1.08	17
1966	May 5, 1.966	1.05	7½.
1967	May 23, 1967	1.28	23
1068	May 26, 1968	7 06	22
1968	11ay 20, 1700	1.00	Conclain

26. Deep Creek below North Fork Deep Creek, near Townsend, Mont. (6-0566)

Location. -- Lat 46°20', long lll°17', in SE4 sec.25, T.7 N., R.3 E., at bridge on county road, ll miles east of Townsend.

Drainage area. -- 87.7 sq mi.

Records available .-- May 1959 to

Gage.--Crest-stage gage installed May 18, 1959. Altitude of gage is 4,510 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	June 7, 1959	2.15	290
1960	June 4, 1960	2.00	25 ¹ +
1961	May 24, 1961	1.60	83
1,962	May 22, 1962	1.66	175
1963	June 2, 1963	1.89	170
1964	May 18, 1964	2.33	329
1965	May 1, 1965	1.98	216
1966	May 5, 1966	2.13	290
1967	June 13, 1967	2.43	305
1968	May 26, 1968	1.88	180

27. Mitchell Gulch near East Helena, Mont. (6-0587).

Location. -- Lat 46°34', long 111°49', in NW sec.2, T.9 N., R.2 W., at culvert on U. S. Highway 12, 4.7 miles east of East Helena. Drainage area. -- 8.09 sq mi.

Records available .-- May 1959 to

Gage.--Crest-stage gage installed May 14, 1959. Altitude of gage is 4,060 ft (from topographic map).

Annual maximum data. --Water year Date Gage height (ft) Discharge (cfs) 53 1.959 e March 1959 0.96 1960 Mar. 19, 1960 .32 June 29, 1961 2 1961 Mar. 20, 1962 Feb. 4, 1963 1962 12 1963 107 1964 (c) Apr. 1, 1965 1965 .62 28 Mar. 10, 1966 1966 •93 50 1967 Mar. 22, 1967 . 94 52 1968 (c)

c No evidence of flow during year.

e Prior to installation of gage.

Location. -- Lat 46°28'20", long 111°51'10", in SE¹/₄ sec. 4, T.8 N., R.2 W., 300 ft upstream from mouth, 8½ miles southeast of East Helena.

Drainage area. -- 3.44 sq mi.

Records available .-- June 1960 to

Gage. -- Staff gage installed June 22, 1960, and crest-stage gage installed July 8, 1960. Altitude of gage is 4,990 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft) Discharge (cfs)
1960	Gross Group	900 pm	Unknown
1961	May 1, 1961	1.48	1 -
1962	June 2, 1962	2.49	16
1963	June 4, 1963	2.21	12
1964	June 8, 1964	2.64	19
1965	June 25, 1965	2.34	14.
1966	May 10, 1966	1.97	7
1967	June 8, 1967	2.73	20
1968	June 10, 1968	2.27	17
1 /00	00000 10,000		

29. Crystal Creek near East Helena, Mont. (6-0618)

Location. -- Lat 46°29'00", long lll°51'40", in NW4 sec.4, T.8 N., R.2 W., a quarter of a mile upstream from mouth, 8 miles southeast of East Helena.

Drainage area. -- 3.77 sq mi.

Records available .-- June 1960 to

Gage. -- Staff gage installed June 22, 1960, and crest-stage gage installed July 8, 1960. Altitude of gage is 4,860 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	200 200		Unknown
1961	May 1, 1961	1.59	a 5
1962	June 2, 1962	1.55	11
1963	June 4, 1963	1.26	7+
1964	June 8, 1964	1.64	21
1965	June 25, 1965	1.46	14-
1966	May 10, 1966	1.32	9
1967	June 8, 1967	1.82	28
1968	June 9, 1968	1.35	12

30. McClellan Creek at City Diversion Dam, near East Helena, Mont. (6-0619)

Location .-- Lat 46°32'00", long 111°52'40", in SE1 sec.17, T.9 N., R.2 W., 300 ft upstream from diversion dam, $4\frac{1}{2}$ miles southeast of East Helena.

Drainage area. -- 33.2 sq mi.

Records available. -- June 1960 to Gage. -- Staff gage installed June 23, 1960, and crest-stage gage installed July 7, 1960. Altitude of gage is 4,200 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	e May-June 1960	3.01	120
1961	May 27, 1961	•65	La La
1962	June 2, 1962	1.48	175
1963	May 26, 1963	•95	1/7
1964	June 8, 1964	2.59	300
1965	June 25, 1965	1.72	390
1966	May 11, 1966	#•/E	.220
1967	June 8, 1967	1 • 23	205
1968		1.00	235
± 700	June 9, 1968	1.73	222

31. Little Porcupine Creek tributary near Helena, Mont. (6-0627)

Location. -- Lat 46°35', long 112°16', in SW sec. 29, T.10 N., R.5 W., at culvert on U. S. Highway 12, il miles west of Helena.

Drainage area. -- 0.48 sq mi. Records available .-- May 1959 to

Gage .-- Crest-stage gage installed May 14, 1959. Altitude of gage is 5,360 ft (from topographic map).
Annual maximum data.--

	ua va •		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	June 6, 1959	0.45	J 5
1960	May 12, 1960	•39	±•/
1961	May 22, 1961	.17	T • <
1962	June 2, 1962	140	0 Tr
1963	May 20, 1963	* ' ' /	7.7
1964	June 8, 1964	1.17	۲.۷
1965	May 1, 1965	.60	5.9
1966	May 7, 1966	28	3.0
1967	May 29, 1967	74.	3.8
1968		• / T	
1900	May 14, 1968	•39	1.2

e Prior to installation of gage.

Location. -- Lat 46°56', long 112°08', in NE sec. 29, T.14 N., R.4 W., 135 ft upstream from mouth, 5½ miles southwest of Wolf Creek.

<u>Drainage area.--29.4</u> sq mi. <u>Records available.--May 1959</u> to

Gage.--Crest-stage gage installed May 15, 1959. Altitude of gage is 3,730 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	June 6, 1959	0.81	63
1960	June 2, 1960	.81	63
1961	May 28, 1961	.12	13
1962	May 22, 1962	1.57	158
1963	Feb. 4, 1963	1.3	120
1964	June 8, 1964	3.80	490
1965	Apr. 22, 1965	1.55	155
1966	May 11, 1966	•69	41
1967	June 13, 1967	2.45	345
1968	June 9, 1968	1.02	75

33. Dog Creek near Craig, Mont. (6-0714)

Location. -- Lat 47°05', long 112°00', in NW sec. 4, T.15 N., R.3 W., at bridge on county road, 2 miles west of Craig.

Drainage area. -- 15.9 sq mi.
Records available -- May 1959 t

Records available. -- May 1959 to

Gage. -- Crest-stage gage installed May 15, 1959. Altitude of gage is 3,660 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	Mar. 19, 1960	0.41	a 30
1961	May 30, 1961	4.40	1,160
1962	Mar. 17, 1962	2.42	114
1 963	Feb. 3, 1963	2.05	70
1964	June 8, 1964	1.97	65
1965	Feb. 17, 1965	2.99	200
1966	Mar. 10, 1966	3.11	230
1967	June 12, 1967	2.37	65
1968	April 1968		a l

34. Wegner Creek at Craig, Mont. (6-0716)

Location. -- Lat 47°05', long lll°57', in NW1 sec.ll, T.15 N., R.3 W., at bridge on Interstate Highway 15 and U. S. Highway 91, 0.9 mile east of Craig.

Drainage area. -- 35.0 sq mi. Records available. -- May 1959 to

Gage. -- Crest-stage gage installed May 15, 1959. Altitude of gage is 3,450 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	June 2, 1960	0.59	46
1961	July 6, 1961	2.54	1408
1962	Apr. 19, 1962	•33	24
1963	Feb. 3, 1963	•67	۴8
1964	May 6, 1964	1.84	280
1965	Mar. 31, 1965	1.11	125
1966	July 1, 1966	71. • 61r	1,020
1967	June 12, 1967	1.06	160
1968	June 10, 1968	•36	84

35. Five Mile Creek near White Sulphur Springs, Mont. (6-0756)

Location. -- Lat 46°37', long 110°45', in SW1 sec.20, T.10 N., R.8 E., at culvert on U. S. Highway 12, 8 miles northeast of White Sulphur Springs.

Drainage area. -- 6.00 sq mi.

Records available .-- May 1959 to

Gage. -- Crest-stage gage installed May 22, 1959. Altitude of gage is 5,380 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	May 1, 1960	1.25	9
1961	Sires Sires		(c)
1962	Mar. 27, 1962	1.38	11
1963	Feb. 4, 1963	2.06	a 20
1964	June 8, 1964	1.16	8
1965	April 1965	1.86	17
1966	Mar. 30, 1966	b 3.34	a 15
1967	May 23, 1967	1.31	10
1968	June 9, 1968	1.38	7
•	, , , ,	= -5	1

a About.

b Backwater from ice

c No evidence of flow during year.

36. Newland Creek near White Sulphur Springs, Mont. (6-0760)

Location.--Lat 46°44', long 110°50', near line between secs. 9 and 10, T.11 N., R.7 E., 15 miles upstream from mouth, 13 miles north of White Sulphur Springs.

Drainage area. -- 6.74 sq mi.

Records available. -- September 1945 to November 1953 (continuous record), June 1959 to

Gage .-- Water-stage recorder re-installed June 19, 1959. Altitude

of gage is 5,590 ft (by barometer).
Annual maximum data.--

AIMIUAL MAXIMUM	uava •		
Water year	Date	Gage height (ft)	Discharge (cfs)
1946	June 11,17, 191	16 0.72	d 4.9
1947	May 6, 1947 May 8, 1948	2.18	18
1948	May 8, 1948	2.64	29
1949	June 1, 1949	1.48	6.2
1950	May 28, 1950	1.64	9.5
1951	May 13, 1951	1.62	11
1952	May 4, 1952 June 4, 1953	1.66	14
1953	June 4, 1953	3.50	56
1960	May 19, 1960	2.39	5.1
1961	May 31, 1961	2.18	3.2
1962	May 29, 1962	2.68	1 5
1963	June 26, 1963	2.53	11
1964	May 17, 1964	3.16	37
1965	May 17, 1965	3.14	36
1966	May 10, 1966	2.53	11 ,
1967	May 23, 1967	3.00	3,4
1968	May 25, 1968	3.04	34

37. Sheep Creek near Neihart, Mont. (6-0767)

Location. -- Lat 46°48', long 110°42', in SEt sec. 15, T.12 N., R.8 E., at culvert on U. S. Highway 89, 10 miles south of Neihart.

Drainage area. -- 5.30 sq mi.

Records available .-- May 1959 to

Gage .-- Crest-stage gage installed May 22, 1959. Altitude of gage is 6,600 ft (from topographic map).

Annual maximum o	<u>aata</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	May 12, 1960	1.12	38
1961	May 27, 1961	1.11	37
1962	May 21, 1962	1.37	49
1963	June 2, 1963	1.08	39
1964	June 8, 1964	2.12	113
1965	June 16, 1965	2.40	138
1966	May 10, 1966	1.27	50
1967	May 31, 1967	2.07	.110
1968	May 25, 1968	1.68	78
	- ,		*

38. Nugget Creek near Neihart, Mont. (6-0768)

Location. -- Lat 46°47', long 110°42', in NE sec. 27, T.12 N., R.8 E., at culvert on U.S. Highway 89, 11 miles south of Neihart.

Drainage area. -- 1.48 sq mi. Records available .-- May 1959 to

Gage .-- Crest-stage gage installed May 22, 1959. Altitude of gage

is 6,400 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	June 7, 1959	1.05	14
1960	May 12, 1960	•38	5
1961	May 27, 1961	.30	L _I .
1962	May 25, 1962	. 50	6
1963	June 2, 1963	. 50	6
1964	May 21, 1964	1.07	15
1965	June 16, 1965	1.13	12
1966	May 10, 1966	.68	8
1967	May 31, 1967	1.42	17
1968	May 25, 1968	1.08	12

39. Smith River tributary near Eden. Mont. (6-0777)

Location .-- Lat 48°18', long 111°26', in SW sec. 13, T.18 N., R.2 E., at bridge on county road, 7½ miles northwest of Eden.

Drainage area. -- 1.63 sq mi.

Records available. -- May 1959 to Gage. -- Crest-stage gage installed May 25, 1959. Altitude of gage is 3,420 ft (from topographic map).

data		
Date	Gage height (ft)	Discharge (cfs)
Mar. 17, 1960	0.32	1.8
'		(c)
June 15, 1962	•72	4.5
Feb. 2, 1963	.67	4.0
May 3, 1964	•30	1.7
July 30, 1965	1.24	a 9
Mar. 8, 1966	.91	a 1 5
June 14, 1967	09	2
May 25, 1968		2 .
	Date Mar. 17, 1960 June 15, 1962 Feb. 2, 1963 May 3, 1964 July 30, 1965 Mar. 8, 1966	Date Gage height (ft) Mar. 17, 1960 June 15, 1962 Feb. 2, 1963 May 3, 1964 July 30, 1965 Mar. 8, 1966 June 14, 1967 Gage height (ft) 0.32

40. Goodman Coulee near Eden, Mont. (6-0778)

Location. -- Lat 47°20', long 111°25', in center sec. 12, T.18 N., R.2 E., at culvert on county road, 8 miles northwest of Eden.

Drainage area. -- 21.8 sq mi.

Records available. -- May 1959 to

Gage. -- Crest-stage gage installed May 25, 1959. Altitude of gage is 3,370 ft (from topographic map).

Annual maximum data .--Gage height (ft) Discharge (cfs) Water year Date e Apr. 22, 1959 1959 1960 1.57 41 May 1, 1960 1.92 (c) 1961 Mar. 19, 1962 Feb. 4, 1963 May 3, 1964 July 30, 1965 Mar. 8, 1966 June 15, 1967 1962 4.17 127 55 150 1963 2.30 5.73 3.80 6.73 1964 1965 117 1966 437 1967 4.33 a 100 1968 May 25, 1968 22

a About.

c No evidence of flow during year.

e Prior to installation of gage; peak discharge computed from highwater marks along highway embankment at culvert.

41. Beaver Creek at Gibson Dam, near Augusta, Mont. (6-0796)

Location. -- Lat 47°36', long 112°45', in SEt sec.4, T.21 N., R.9 W., at bridge on county road, 19 miles northwest of Augusta.

Drainage area. -- 20.3 sq mi.
Records available. -- May 1959 to

Gage. -- Crest-stage gage installed May 28, 1959. Altitude of gage is 4,560 ft (from topographic map).

Annual maximum	<u>aata</u> •		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	June 6, 1959	0.78	110
1960	May 12, 1960	2.28	458
1961	May 7, 1961	•37	. 55
1962	May 26, 1962	2.45	496
1963	May 25, 1963	.85	122
1964	June 8, 1964		¹ + , 360
1965	June 11, 1965	.71	75
1966	May 29, 1966	·1+1	. 4O
1967	May 30, 1967	1.16	300
1968	April 1968	b 1.16	a 50
1961 1962 1963 1964 1965 1966	May 7, 1961 May 26, 1962 May 25, 1963 June 8, 1964 June 11, 1965 May 29, 1966	2.45 .85 .71 .41 1.16	¹ 4,360 75 . 40 300

42. Muddy Creek tributary near Power, Mont. (6-0879)

Location. -- Lat 47°45', long lll°43', on south line of SW4 sec.10., T.23 N., R.1 W., at culvert on county road, 3 miles west of U. S. Highway 91, 3½ miles northwest of Power, and 6 miles south of Dutton.

Drainage area. -- 3.15 sq mi.

Records available .-- April 1963 to

Gage. -- Crest-stage gage installed Apr. 16, 1963. Altitude of gage is 3,710 ft (from topographic map).

Water year Date Gage height (ft) Discharge (c	fs)
1963 July 10, 1963 1.15 19	
1964 May 3, 1964 2.26 284	
1965 June 17, 1965 2.27 130	
1966 July 2, 1966 5.41 620	
1967 June 10, 1967 1.73 62	
1968 Aug. 15, 1968 1.94 130	

a About.

b Backwater from ice.

43. Sun River tributary near Great Falls, Mont. (6-0893)

Location. -- Lat 47°32', long 111°24', in SW1 sec.31, T.21 N., R.3 E., at culvert on old U. S. Highways 89 and 91, 4 miles northwest of Great Falls.

Drainage area. -- 21.1 sq mi.

Records available. -- August 1955 to

Gage. -- Crest-stage gage installed Aug. 15, 1955. Altitude of gage is 3,330 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1956	Mar. 20, 1956	1.20	1
1957	June 16, 1957	1.05	.1
1958	July 3, 1958	2.74	156
1959	Mar. 2, 1959	2.52	116
1960	May 23, 1960	1.28	6
1961	num tous	arm tons	(c)
1962	May 21, 1962	3.06	a 150
1963	July 5, 1963	1.64	18
1964	June 8, 1964	5.46	470
1965	June 26, 1965	¹ +•39	280
1966	Mar. 9, 1966	3.54	165
1967	July 3, 1967	2.92	102
1968	Feb. 23, 1968	1.61	18
	•		

44. Middle Fork Dry Fork Marias River near Dupuyer, Mont. (6-0997)

Location. -- Lat 48°09', long 112°28', in NE¹/₄ sec. 35, T.28 N., R.7 W., at culvert on county road, 4 miles southeast of Dupuyer. Drainage area. -- 20.2 sq mi.

Records available. -- May 1959 to . Prior to 1964, published as
North Fork Dry Fork Marias River near Dupuyer.

Gage. -- Crest-stage gage installed May 28, 1959. Altitude of gage is 4,120 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	Mar. 17, 1960	b 1.24	a 70
1961	May 7, 1961	.29	10
1962	Mar. 19, 1962	• 99	61
1963	Feb. 3. 1963	b 2.11	a 45
1964	June 8, 1964	6.56	4.240
1965	Feb. 20, 1965	4.87	a'300
1966	Mar. 26, 1966	2.22	100
1967	May 9, 1967	4.15	24.0
1968	Sept. 20, 1968	1.16	4.1

a About.

b Backwater from ice.

c No evidence of flow during year.

45. Heines Coulee tributary near Valier, Mont. (6-1002)

Location. -- Lat 48°15', long 112°14', in NET sec. 27, T.29 N., R.5 W., at culvert on county road, 4 miles south of Valier.

Drainage area. -- 0.60 sq mi.

Records available .-- May 1959 to

Gage. -- Crest-stage gage installed May 27, 1959. Altitude of gage is 3,860 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	May 1, 1960	0.92	9
1961	May 17, 1961	• 54	4
1962	Jan. 29, 1962	b •¹+1	a 2
1963			(c)
1964	June 8, 1964	10.57	64
1965	June 15, 1965	1.00	6
1966	Mar. 26, 1966	1.05	7
1967	May 7, 1967	1.46	. 12
1968	Feb. 28, 1968	•55	3
•	,	• •	

46. Lone Man Coulee near Valier, Mont. (6-1003)

Location. -- Lat 48°14', long 112°14', in SE4 sec. 27, T.29 N., R.5 W., at culvert on county road, 5 miles south of Valier.

<u>Drainage area.--14.1</u> sq mi. <u>Records available.--May 1959 to</u>

Gage.--Crest-stage gage installed May 27, 1959. Altitude of gage is 3,780 ft (from topographic map).

Annual maximum data.--Water year Gage height (ft) Date Discharge (cfs) 1960 May 1, 1960 0.58 32 1961 May 17, 1961 22 Jan. 29, 1962 Aug. 19, 1963 b 2.87 1962 .49 27 1963 1,740 June 8, 1964 Feb. 17, 1965 2.38 1964 400 1965 1.38 1966 140 Mar. 9, 1966 June 10, 1967 135 1967 .91 Jan. 23, 1968 1968 39

a About.

b Backwater from ice.

c No evidence of flow during year.

47. Marias River tributary No. 3 near Chester, Mont. (6-1016)

Location. -- Lat 48°14', long 110°53', in NEt sec. 36, T.29 N., R.6E., at culvert on State Secondary Highway 223, 2.1 miles south of Marias River bridge and 20 miles southeast of Chester.

Drainage area. -- 0.32 sq mi.

Records available. -- May 1962 to Gage. -- Crest-stage gage installed Apr. 18, 1963. Altitude of gage is 2,900 ft (from topographic map).

Annual maximum	<u> aata</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	e May 21, 1962	3.18	29
1963	July 4, 1963	1.20	9
1964	June 8, 1964	1.37	11
1965	June 17, 1965	1.67	14
1966	June 4, 1966	°1+8	14
1967	February 1967	•32	3.
1968	an		(c)

48. Cottonwood Creek tributary near Chester, Mont. (6-1017)

Location. -- Lat 48°27', long lll°05', near center of east line of sec.9, T.31 N., R.5 E., at culvert on county road 3½ miles south of Tiber Siding on Great Northern Railway and U. S. Highway 2, 6 miles southwest of Chester.

Drainage area. -- 2.28 sq mi.

Records available .-- April 1963 to

Gage. -- Crest-stage gage installed Apr. 17, 1963. Altitude of gage is 3,100 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1963	June 28, 1963	4.08	79 (revised)
1964	June 8, 1964	.98	a 10
1965	Apr. 10, 1965	3.3 ¹ +	67
1966	July 3, 1966	1.61	21
1967	Mar. 22, 1967	5.01	96
1968			(c)
•			

a About.

c No evidence of flow during year.

e Prior to installation of gage.

49. Cottonwood Creek tributary No. 2 near Chester, Mont. (6-1018)

Location. -- Lat 48°20', long 110°57', in NW1 sec.27, T.30 N., R.6 E., at bridge on State Secondary Highway 223, 51 road miles north of Marias River bridge, and 122 miles south of Chester.

Drainage area. -- 24.6 sq mi.

Records available .-- April 1963 to

Gage .-- Crest-stage gage installed Apr. 17, 1963. Altitude of gage is 2,950 ft (from topographic map).

Water year Date Gage height (ft) Discharge (c	fs)
1963 (c)	
1964 June 8, 1964 2.35 75	
1965 Apr. 7, 1965 3.18 220	
1966 July 3, 1966 2.70 130	
1967 Mar. 21, 1967 2.20 55	
1968 (c)	

50. Dead Indian Coulee near Fort Benton, Mont. (6-1019)

Location. -- Lat 48°05', long 110°50', in center of sec.21, T.27 N., R.7 E., at culvert on State Secondary Highway 223, 20 miles northwest of Fort Benton.

Drainage area. -- 2.73 sq mi.

Records available. -- April 1963 to Gage. -- Crest-stage gage installed Apr. 18, 1963. Altitude of gage is 3,250 ft (from topographic map). Annual maximum data .--

23433	Tual marimum	<u>uava</u> •		
	Water year	Date	Gage height (ft)	<u>Discharge (cfs)</u>
	1963			(c)
	1964	May 3, 1964	2.19	22
	1965	Feb. 17, 1965	4.16	52
	1966	Mar. 9, 1966	4.95	116
	1967	Mar. 21, 1967	.21	< 1
	1968	,,		(c)
	=,00			(6)

c No evidence of flow during year.

Location .-- Lat 47°57', long 110°33', in SW+ sec.2, T.25 N., R.9 E., at culvert on county road, 2 miles west of Loma.

Drainage area. -- 0.84 sq mi.

Records available .-- May 1959 to

Gage .-- Crest-stage gage installed May 25, 1959. Altitude of gage is 2,580 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	e Mar. 1, 1959	4.02	71
1960	Mar. 17, 1960	.41	a 2
1961	May 31, 1961	b 1.42	a l
1962	May 21, 1962	.85	6
1963	Aug. 25, 1963	1.54	16
1964	Aug. 19, 1964	1.06	8
1965	June 24, 1965	7.23	244
1966	June 3, 1966	3.27	54
1967	March 1967	1.09	7
1968	June 9, 1968	1.74	20
	•		

52. Marias River tributary at Loma, Mont. (6-1022)

Location .-- Lat 47°57', long 110°31', in SW4SE4 sec.1, T.25 N., R.9 E, at bridge on county road, five eighths of a mile west of Loma. Drainage area. -- 1.62 sq mi.

Records available. -- August 1955 to Gage. -- Crest-stage gage installed Aug. 18, 1955. Altitude of gage is 2,590 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1956	1956	8.0 ď	a 5
1957	Mar. 1, 1957	b 1.74	a 3
1958	Mar. 29, 1958	.68	a 4
1959	Mar. 1, 1959	b 2.9	a 12
1960	Mar. 17, 1960	150	a 6
1961	Com spen	to the	(c)
1962	May 21, 1962	2.11	a 20
1963	Feb. 4, 1963	b 1.88	a 10
1964	Aug. 19, 1964	b 1.58	a 8
1965	June 24, 1965	4.87	300
1966	June 3, 1966	2.43	82
1967	March 1967	1.43	76
1968	Feb. 24, 1968	2.16	22
1900	1000 279 1700	- 9 0	

a About.

b Backwater from ice.

c No evidence of flow during year.

e Prior to installation of gage.

53. Marias River tributary No. 2 at Loma, Mont. (6-1023)

Location. -- Lat 47°57', long 110°30', in NEINE sec.12, T.25 N., R.9 E., at culvert on approach to U. S. Highway 87, a quarter of a mile north of Loma.

Drainage area. -- 0.25 sq mi.

Records available .-- August 1955 to

Gage. -- Crest-stage gage installed Aug. 18, 1955. Altitude of gage

is 2,590 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1956	May 27, 1956	2.97	a 20
1957	Mar. 1, 1957	b 2.46 b 1.40	a 10
1958	Mar. 29, 1958	b 1.40	a 1
1959	February 1959	1.01	a 1
1960	Mar. 17, 1960	b 1.73	a 2
1961	non map	tem man	(c)
1962	Mar. 17, 1962	b 1.55	a 2
1963	June 28, 1963	2.60	a 15
1964	Aug. 19, 1964	1.38	2
1965	June 24, 1965	4.78	4.2
1966	June 3, 1966	2.85	18
1967	June 14, 1967	.92	<.5
1968	June 9, 1968	• 97	•5
	, , ,		

54. Bruce Coulee tributary near Choteau, Mont. (6-1058)

Location. -- Lat 47°44', long 112°15', near center of sec.21, T.23 N., R.5 W., at culvert on county road, 1.2 miles west of State Highway 287, 6 miles southwest of Choteau.

Drainage area. -- 1.70 sq mi.

Records available .-- April 1963 to

Gage.--Crest-stage gage installed Apr. 16, 1963. Altitude of gage is 3,940 ft (from topographic map).

1	Annual maximum	data	•	
**	Water year	Date	Gage height (ft)	Discharge (cfs)
	1963	June 28, 1963	0.65	a 18
	1964	June 8, 1964	1.76	1 ¹ +8
	1965	June 16, 1965	1.90	1 ¹ 10
	1966	July 2, 1966	3.50	2 ¹ l·7
	1967	June 10, 1967	2.44	155
	1968	Sept. 21, 1968	.54	15

a About.

b Backwater from ice.

c No evidence of flow during year.

55. Kinley Coulee near Dutton, Mont. (6-1082)

Location. -- Lat 47°51', long lll°36', in center of north line of sec.15, T.24 N., R.1 E., at culverts on county road, 5.1 miles east of Dutton on Diamond Valley Road.

Drainage area. -- 9.67 sq mi.

Records available .-- April 1963 to

Gage. -- Crest-stage gage installed Apr. 17, 1963. Altitude of gage

is 3,560 ft (from topographic map).

	<u>uata</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1963	(mm (076)	Non-som	(c)
1964	June 21, 1964	8.0	364
1965	June 16, 1965	1.39	24
1966	July 2, 1966	10.72	2.070
1967	May 7, 1967	1.31	1 20
1968	Sept. 21, 1968	•58	1
	_ / /	-	

56. Kinley Coulee tributary near Dutton, Mont. (6-1083)

Location. -- Lat 47°51', long 111°33', on north line of NW4 sec.13, T.24 N., R.1 E., at culverts on county road, 6.5 miles east of Dutton on Diamond Valley Road.

Drainage area. -- 2.65 sq mi.

Records available .-- April 1963 to

Gage. -- Crest-stage gage installed Apr. 16, 1963. Altitude of gage is 3,610 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1963	Sept. 16, 1963	1.28	18
1964	June 8, 1964	2.98	76
1965	Mar. 31, 1965	1.43	7
1966	July 2, 1966	14.77	465
1967	May 7, 1967	1.59	25
1968	June 9, 1968	.61	2

c No evidence of flow during year.

57. Judith River tributary near Utica, Mont. (6-1099)

Location. -- Lat 46°53', long 110°16', in SW sec.13, T.13 N., R.11E., at bridge on county road, 10 miles southwest of Utica.

Drainage area. -- 7.17 sq mi. Records available. -- May 1959 to

Gage.--Crest-stage gage installed May 21, 1959. Altitude of gage is 5,100 ft (from topographic map).

<u>uata</u>		
Date	Gage height (ft)	Discharge (cfs)
Mar. 18, 1960	0.65	Not determined
	tion too	(c) .
June 14, 1962	1.00	Not determined
Feb. 4, 1963	b 3.33	Not determined
	time time	(c)
April 1965	2.146	83
Mar. 10, 1966	2.06	Not determined Not determined
June 10, 1967	• 55	Not determined
pile tree	wa 600	(c)
	Date Mar. 18, 1960 June 14, 1962 Feb. 4, 1963	Date Mar. 18, 1960 June 14, 1962 Feb. 4, 1963 April 1965 Mar. 10, 1966 Gage height (ft) 1.00 3.33 April 1965 2.46 2.06

58. Judith River tributary No. 2 near Utica, Mont. (6-1099.5)

Location. -- Lat 46°54', long 110°15', in SE4 sec.7, T.13 N., R.12 E., at bridge on county road, 9½ miles southwest of Utica.

<u>Drainage area.--6.97</u> sq mi. <u>Records available.--May 1959</u> to September 1967 (discontinued).

Gage. -- Crest-stage gage installed May 21, 1959. Altitude of gage is

4,850 ft (from topographic map).

THE THOUSE MONTHWILL	ua va •		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	Mar. 18, 1960	0.70	Not determined
1961	0100 0100	Dres save	(c)
1962	June 14, 1962	•90	Not determined
1963	Feb. 4, 1963	1.00	Not determined
1964	June 8, 1964	1.29	Not determined
1965	April 1965	1.69	Not determined
1966	Mar. 10, 1966	.18	Not determined
1967	Sept. 13, 1967	.96	Not determined

b Backwater from ice.

c No evidence of flow during year.

59. Casino Creek tributary near Lewistown, Mont. (6-1117)

Location. -- Lat 47°00', long 109°26', in NE sec. 9, T.14 N., R.18 E., at culverts on county road, 5 miles south of Lewistown.

<u>Drainage area.--3.53</u> sq mi.

Records available .-- May 1959 to

Gage. -- Crest-stage gage installed May 21, 1959. Altitude of gage is 4,200 ft (from topographic map).

Annual maximum data.--

2000	Mark Class 211 Class Landons C	sa oa o		
	Water year	Date	Gage height (ft)	Discharge (cfs)
	1960	Mar. 18, 1960	0.94	10
	1961		-	(c)
	1962	May 21, 1962	3.24	40
	1963	May 12, 1963	• 54	5
	1964	May 3, 1964	3.67	44
	1965	June 17, 1965	5.00	66
	1966	Mar. 12, 1966	b 1.71	a 1
	1967	June 14, 1967	2.44	29
	1968	June 9, 1968	1.13	17
	*			

60. Cottonwood Creek near Moore, Mont. (6-1121)

Location. -- Lat 46°59', long 109°29', in NW sec. 18, T.14 N., R.18 E., 30 ft downstream from bridge on county road, 9½ miles east of Moore, and 12 miles upstream from mouth.

Drainage area .-- 47.9 sq mi.

Records available. -- August 1957 to September 1963 (continuous record), October 1963 to

Gage. -- Water-stage recorder. Altitude of gage is 4,300 ft (from topographic map).

Annual maximum data.-Water year Gage height (ft) Discharge (cfs) Date 57 1958 May 22, 1958 3.78 5.42 June 7, 1959 June 4, 1960 1959 143 102 1960 June 1, 1961 4.83 1961 101 May 22, 1962 683 1962 6.77 4.75 7.68 4.52 1963 June 15, 1963 June 9, 1964 216 1,220 1964 June 17, 1965 May 29, 1966 162 1965 4.47 155 1966 1,186 June 8, 1967 7.60 1967 578 6.69 1968 June 10, 1968

a About.

b Backwater from ice.

c No evidence of flow during year.

61. Missouri River tributary near Landusky, Mont. (6-1151)

Location .- Lat 47°38', long 108°42', in NW1 sec.31, T.22 N., R.24 E., at culvert on county road 0.4 mile west of U. S. Highway 191 along south side of Missouri River, 19 miles south of Landusky.

Drainage area. -- 3.39 sq mi.

Records available. -- June 1962 to Gage. -- Crest-stage gage installed May 14, 1963. Altitude of gage is 2,280 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	e June 15, 1962		>500
1963	July 18, 1963	3.75	111
1964	May 3, 1964	.04	1
1965	May 7, 1965	1.07	20
1966	time time	-	(c)
1967	Mar. 23, 1967	1.86	30
1968	Aug. 15, 1968	2.23	. LI-O
*		_	

62. Duval Creek near Landusky, Mont. (6-1153)

Location .- Lat 47°45', long 108°42', in center of sec. 13, T.23 N., R.23 E., at culvert on U. S. Highway 191, 10.0 road miles north of the Fred L. Robinson Bridge over the Missouri River, 11 miles southwest of Landusky.

Drainage area. -- 3.31 sq mi. Records available .-- May 1963 to

Gage .-- Crest-stage gage installed May 14, 1963. Altitude of gage is 2,900 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1963	May 11, 1963	2.13	1+6
1964	Aug. 20, 1964	4.23	145
1965	May 7, 1965	6.30	280
1966	Apr. 26, 1966	2.14	4.7
1967	Mar. 23, 1967	3.80	73
1968	Feb. 28, 1968	2.09	19

c No evidence of flow during year. e Prior to installation of gage.

63. Antelope Creek tributary near Harlowton, Mont. (6-1206)

Location. -- Lat 46°39', long 109°58', in NE¹/₄ sec. 8, T.10 N., R.14 E., at culvert on county road, 18.3 miles northwest of Harlowton.

Drainage area.--0.47 sq mi.

Records available.--July 1955 to

Gage.--Crest-stage gage installed July 13, 1955. Altitude of gage

is 5,400 ft (from topographic map).

Ammal maximum	uata		
Water year	Date	Gage height (ft)	Discharge (cfs)
1956	June 15, 1956 March 1957	1.36	13
1957	March 1957	• 56	7
1958	one one	ness com	(c)
1959	March 1959	1.72	3
1960	Mar. 18, 1960	2.04	6
1961	June 13, 1961	.25	(c)
1962	Mar. 26, 1962	1.40	1
1963	Feb. 4, 1963	1.32	1
1964		dista cure	(c)
1965	April 1965	1.15	<1
1966	July 2, 1966	1.47	2 _
1967	Apr. 12, 1967	.92	∠• 5
1968	Feb. 28, 1968	1.09	<.5

64. Antelope Creek tributary near mouth, near Harlowton, Mont. (6-1207)

Location. -- Lat 46°37', long 109°57', in NW sec. 22, T.10 N., R.14 E., at bridge on county road, 16.3 miles northwest of Harlowton.

Drainage area. -- 1.92 sq mi.

Records available .-- July 1955 to

Gage. -- Crest-stage gage installed July 12, 1955. Altitude of gage

is 5,000 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1956	Mar. 17, 1956	1.60	207
1957	June 16, 1957	1.51	188
1958	May 23, 1958	.17	17
1959	Mar. 20, 1959	•75	65
1960	Mar. 18, 1960	.42	.33
1961	tura dana	Super desires	(c)
1962	Mar. 26, 1962	. 28	20
1963	Feb. 4, 1963	b 1.49	a 50
1964	March 1964	•54	a 45
1965	April 1965	1.40	165
1966	Mar. 20, 1966	.68	60
1967	Mar. 23, 1967	b .58	< 5
1968	June 29, 1968	.74	65
•	* *		

a About.

b Backwater from ice.

c No evidence of flow during year.

65. Antelope Creek tributary No. 2 near Harlowton, Mont. (6-1208)

Location .-- Lat 46°28', long 109°49', in SE sec. 10, T.8 N., R.15 E., at E. S. Bacon ranch, 12 miles north of Harlowton.

Drainage area. -- 21.2 sq mi.

Records available .-- July 1955 to

Gage .-- Crest-stage gage installed July 13, 1955. Altitude of gage

is 4,250 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1956	June 15, 1956	3.51	820
1957	June 21, 1957	1.95	190
1958	June 1958	•36	35
1959	Mar. 20, 1959	• 57	80
1960		(f)	< 25
1961		(f)	<25
1962	June 16, 1962	5.56	3,230
1963	Feb. 4, 1963	b .61	a 20
1964	June 8, 1964	1.1+1	a 130
1965	June 12, 1965	3.79	922
1966	does door .	(f)	<50
1967	June 13, 1967	1.32	125
1968	June 7, 1968	1.04	95

66. Antelope Creek at Harlowton, Mont. (6-1209)

Location .- Lat 46°26', long 109°49', in NEt sec. 22, T.8 N., R.15 E., on overpass on U. S. Highway 12 at Harlowton.

Drainage area. -- 88.7 sq mi.
Records available. -- July 1955 to

Gage .-- Crest-stage gage installed July 12, 1955. Altitude of gage is 4,150 ft (from topographic map).

Annual maximum	data		
<u>Water year</u>	Date	Gage height (ft)	Discharge (cfs)
1950	e June 17, 1950	16.73	24,1,100
1954	e Aug. 15, 1954	4.52	1,600
1955	e June 26, 1955	3.01	591
1956	June 15, 1956	3.28	800
1957	June 21, 1957	1.52	170
1958	new new	(f)	<30
1959	Carelo discor	(f)	<30
1960	CHIRD dates	(f)	<30
1961		(f)	<30
1962	June 16, 1962	4.02	1,280
1963	Feb. 4, 1963	(f)	<30
1964		(f)	<30
1965	June 12, 1965	2,2	318
1966	— to	(f)	<30
1967	June 7, 1967	.60	70
1968	June 13, 1968	.90	95

a About.

b Backwater from ice.

e Prior to installation of gage.

f Peak discharge did not reach bottom of gage.

67. Currant Creek near Roundup, Mont. (6-1263)

Location .-- Lat 46°22', long 108°39', in SW sec. 7, T.7 N., R.25 E., at bridge on U. S. Highway 12, 7 miles southwest of Roundup.

Drainage area. -- 220 sq mi. Records available. -- May 1958 to

Gage. -- Crest-stage gage installed May 9, 1958. Altitude of gage

is 3,250 ft (from topographic map).

Cooperation. -- Montana State Water Conservation Board. Annual maximum data

uava •		
Date	Gage height (ft)	Discharge (cfs)
July 19, 1958	2.12	a 40
Mar. 1, 1959	6.65	780
don one		Unknown
July 21, 1961		31
June 15, 1962	5.28	395
	b 3.45	a 20
June 8, 1964	3.80	140
Apr. 1, 1965	1.55	25
July 3, 1966		37
June 7, 1967	b 9.75	1,620
June 9, 1968	2.85	71
	Date July 19, 1958 Mar. 1, 1959 July 21, 1961 June 15, 1962 June 5, 1963 June 8, 1964 Apr. 1, 1965 July 3, 1966	July 19, 1958 Mar. 1, 1959 July 21, 1961 June 15, 1962 June 5, 1963 June 8, 1964 Apr. 1, 1965 July 3, 1966 June 7, 1967 b 9.75

68. South Willow Creek tributary near Roundup, Mont. (6-1271)

Location. -- Lat 46°31', long 108°35', in center E sec. 28, T.9 N., R.25 E., at culvert on U. S. Highway 87 between Roundup and Grass Range, 4½ miles north of Roundup.

Drainage area.--1.38 sq mi.

Records available .-- May 1962 to

Gage .-- Crest-stage gage installed Apr. 28, 1963. Altitude of gage is 3,450 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	May 13, 1962	8.34	ttrtt
1963	-	-	(c)
1964	June 8, 1964	1.77	45
1965	July 27, 1965	9.90	510
1966	July 3, 1966	4.94	210
1967	June 7, 1967	1.75	45
1968	June 9, 1968	4.40	175
-/00	0 00000 / 9 - 7 0 0		-12

a About.

b Backwater from ice or debris.

c No evidence of flow during year.

69. Musselshell River tributary near Musselshell, Mont. (6-1272)

Location. -- Lat 46°30', long 108°15', in SW1 sec.30, T.9 N., R.28 E., at bridge on U. S. Highway 12, 7.0 road miles east of Gage rail-road siding, 2.0 miles west of road to Delphia, and 8 miles west

Drainage area .-- 10.8 sq mi. Records available .-- May 1963 to

Gage .-- Crest-stage gage installed May 15, 1963. Altitude of gage

is 3,070 ft (from topographic map). Annual maximum data

AILIUAL MAXIMUM	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1964		600 ans 600 ans	(c)
1965 1966	April 1965 Mar. 10, 1966	1.73	(c) 150
1967 1968	March 1967	.44	22 <1
7,200	July 15, 1968	2.30	154

70. Home Creek near Melstone, Mont. (6-1275.3)

Location. -- Lat 46°38', long 107°47', in NE¹/₄ sec.14, T.10 N., R.31 E., at bridge on U. S. Highway 12, 2.2 miles east of Musselshell River bridge, 5 miles northeast of Melstone, and 11 miles west

Drainage area. -- 31.2 sq mi. Records available .-- May 1963 to September 1967 (discontinued). Gage .-- Crest-stage gage installed May 16, 1963. Altitude of gage is 2,860 ft (from topographic map).

Annual maximum data .--Water year Date Gage height (ft) Discharge (cfs) 1963 1964 (c) 1965 (c) May 7, 1965 July 13, 1966 3.47 95 1966 5.98 252 June 4, 1967 1967 3.18 a 75

a About.

c No evidence of flow during year.

71. Butts Coulee near Melstone, Mont. (6-1275.7)

Location. -- Lat 46°39', long 107°49', in center E½ sec.9, T.10 N., R.31 E., at culvert on county road, 2.8 miles north of U.S. Highway 12, 4 miles northeast of Melstone.

Drainage area. -- 5.96 sq mi.

Records available. -- May 1963 to . Prior to 1966, published as Musselshell River tributary No. 2 near Melstone.

Gage. -- Crest-stage gage installed May 16, 1963. Altitude of gage

is 2,810 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1963	May 11, 1963	2.67	64
1964	Aug. 20, 1964	÷ 3.53	100
1965	June 15, 1965	3.9	114
1966	Mar. 8, 1966	1.21	20
1967	June 18, 1967	2.60	62
1968	June 9, 1968	8.44	310

72. South Fork Bear Creek near Roy, Mont. (6-1284)

Location.--Lat 47°12', long 108°48', in SW\(\frac{1}{4}\) sec.28, T.17 N., R.23 E., at bridge on State Highway 19, 10.2 miles south of U. S. Highway 191, 11.2 miles north of U. S. Highway 87 and State Highway 18, 12 miles southeast of Roy, and 12 miles north of Grass Range.

Drainage area.--39.6 sq mi.

Records available. -- June 1962 to

Gage. -- Crest-stage gage installed May 15, 1963. Altitude of gage is 3,250 ft (from topographic map).

Annual maximum	data		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1962	June 15, 1962	2.67	225
1963	May 11, 1963	1.37	. 30
1964	June 8, 1964	5.05	1,490
1965	April 1965	2.55	200
1966	July 3, 1966	2.86	265
1967	June 9, 1967	1.78	.75
1968	June 9, 1968	4.39	940

73. South Fork Bear Creek tributary near Roy, Mont. (6-1285)

Location. -- Lat 47°14', long 108°48', in SW# sec.16, T.17 N., R.23 E., at culvert on State Highway 19, 8.7 road miles south of U. S. Highway 191, 1.7 miles north of South Fork Bear Creek, 10½ miles southeast of Roy, and 14 miles north of Grass Range.

Drainage area. -- 5.40 sq mi.

Records available. -- June 1962 to

Gage. -- Crest-stage gage installed May 14, 1963. Altitude of gage is 3,300 ft (from topographic map).

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A 7			
// 77 7111 0	חוות בעבות	n naia	
Annual	martina	n data	

777	HUAL MAKLMAM	aava.		
	Water year	Date	Gage height (ft)	Discharge (cfs)
	1962	June 15, 1962	1.90	28
	1963	June 25, 1963	.42	1
	1964	July 5, 1964	2.88	63
	1965	April 1965	2.78	59
	1966	July 3, 1966	- 2.65	53
	1967 -	May 1967	1.33	15
	1968	June 9, 1968	3.31	82

74. Box Elder Creek tributary near Winnett, Mont. (6-1289)

Location .-- Lat 47°01', long 108°10', in SW4NW4 sec. 34, T.15 N., R.28 E., a quarter of a mile north of State Highway 20 and

8 miles east of Winnett.

Drainage area. -- 16.2 sq mi.

Records available. -- July 1955 to Gage. -- Crest-stage gage installed July 14, 1955. Altitude of gage is 2,740 ft (from topographic map).

Appual maximum data

AIIIIUAL MAXIMUM	uata		
Water year	Date	Gage height (ft)	Discharge (cfs)
1955	Aug. 23, 1955	2.20	132
1956	June 18, 1956	2.11	123
1957	Feb. 28, 1957	.66	27
1958	July 31, 1958	2.86	193
1959	Mar. 1, 1959	3.86	412
1960	Mar. 18, 1960	3.37	275
1961	Aug. 10, 1961	•90	1+O
1962	June 15, 1962	b 8.3	a 125
1963	May 11, 1963	2.87	19 ¹ t
1964	May 3, 1964	1.89	105
1965	March 1965	ъ 3.84	a 200
1966	March 1966	ъ 1.36	a 30
1967	May 11, 1967	1.83	100
1968	June 9, 1968	3.27	258
	•		

a About.

b Backwater from ice.

75. North Fork McDonald Creek tributary near Heath, Mont. (6-1291)

Location. -- Lat 47°04', long 109°13', in NEt sec.17, T.15 N., R.20 E., at culvert on U. S. Highway 87 and State Highway 20, 5 miles northeast of Heath.

Drainage area. -- 2.24 sq mi.

Records available. -- May 1959 to

Gage. -- Crest-stage gage installed May 19, 1959. Altitude of gage
is 4,280 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	Mar. 18, 1960	1.04	Not determined
1961	Oct. 1, 1960	.02	Not determined
1962	May 21, 1962	1.21	Not determined
1963	May 12, 1963	•38	Not determined
1964	June 8, 1964	1.51	Not determined
1965	March 1965	.90	Not determined
1966	Mar. 31, 1966	.96	Not determined
1967	April 1967	ø83	Not determined
1968	August 1968	.34	Not determined

76. Alkali Creek near Heath, Mont. (6-1292)

Location. -- Lat 47°05', long 109°09', in SE sec. 11, T.15 N., R.20 E., at bridge on county road, 7 miles northeast of Heath.

<u>Drainage area.--3.76</u> sq mi. <u>Records available.--May 1959</u> to

Gage.--Crest-stage gage installed May 19, 1959. Altitude of gage is 4,060 ft (from topographic map).

Annual maximum data .--Water year Gage height (ft) Discharge (cfs) Mar. 18, 1960 1.83 a 60 1960 Feb. 20, 1961 b .62 1961 a 15 757 <1 1962 June 15, 1962 7.4 1963 1964 June 8, 1964 4.12 a 120 2.59 a 55 a 60 March 1965 1965 1.51 Mar. 10, 1966 1966 19 June 7, 1967 .36 1 967 June 11, 1968 2 1968

77. South Fork McDonald Creek tributary near Grassrange, Mont. (6-1294)

Location. -- Lat 47°00', long 108°47', in center of sec.3, T.14 N., R.23 E., at culvert on U. S. Highway 87, 1.4 road miles south of the approach road to Grassrange, 12 miles southeast of Grassrange.

Drainage area. -- 0.51 sq mi.

Records available .-- May 1963 to

Gage.--Crest-stage gage installed May 15, 1963. Altitude of gage is 3,700 ft (from topographic map).

Annual maximum	data	•	
Water year	Date	Gage height (ft)	Discharge (cfs)
1963	June 29, 1963	0.16	6
1964	June 8, 1964	2.42	38
1965	March 1965	• 14-0	8
1966	March 1966	ъ 1.30	a l
1967	June 14, 1967	•95	15
1968	June 9, 1968	1.25	19

a About.

b Backwater from ice.

78. McDonald Creek at Winnett, Mont. (6-1295)

Location. --Lat 47°00', long 108°21', in NW1 sec.7, T.14 N., R.27 E., at bridge on State Secondary Highway 244, three-quarters of a mile south of Winnett.

Drainage area. -- 421 sq mi.

Records available. -- April 1930 to December 1932, February 1934 to September 1945, and February 1953 to September 1956 (continuous record), October 1956 to

Gage.--Crest-stage gage installed Sept. 19, 1960. Prior to Oct. 1, 1956, wire-weight gage, and Oct. 1, 1956, to March 1960, crest-stage gage 1 mile downstream at different datum. Altitude of gage is 2,930 ft (by barometer), at old site.

Annual maximum data.--

Annual maximum	<u>aata</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1931	Mar. 1-3, 1931 June 9, 1932	13.30	d 4.2
1932	June 9, 1932	20.40	d 562
1934	Tune 0 103h	18.12	d 351
1935	June 9, 1934 July 8, 1935	18.30	4 371
1937	Man 5 1036	10.30	d 371
1936	Mar. 9, 1936	** O ===	a 220
1937	inth 13, 1634	18.75	401
1938	July 8, 1938	18.71	d 328
1939	Mar. 5, 1936 July 13, 1937 July 8, 1938 June 19, 1939 Mar. 3, 1940 June 28, 1941 May 15 or 16, 194	4.55	270
1940	Mar. 3, 1940		a 75
1941	June 28, 1941	5.42	482
1942	May 15 or 16, 191	+2 7.5	900
1943	June 8, 18, 194	+2 7.5 3 5.59	d 549
1944	June 8, 18, 1947 June 20, 1944	7.40	853
1945	June 7, 1945	2.48	d 180
1953	June 10, 1953	2.48 5.66	d 424
1954	June 10, 1953 Aug. 5, 1954	3.00	47
1955	Apr. 11, 1955	4.39	241
1956	Δ110. 3 1956	2.55	88
1957	Aug. 3, 1956 Mar. 19, 1957	2.55 2.20 3.23	67
1958	July 19, 1958	3 23	150
1050	Man 1 1050	h 6 8h	a 400
1959	Mar. 1, 1959	ъ 6.84 4.44	a 200
1960	Mar. 19, 1960	7.77	a 200
1961	Mar. 20, 1961 June 17, 1962	1.25	485
1962	June 17, 1962	4.20	
1963	Feb. 4, 1963 June 10, 1964	- 700	a 250
1964	June 10, 1964	a 10.0	1,440 a 800
1965	March 1965	b 7.70	a 800
1966	Mar. 9, 1966	6.83	a 200 890
1967 1968	12200 16 1067	6 81	X UI
	June 16, 1967 June 9, 1968	6.37	810

a About.

b Backwater from ice or beaver dam.

d Maximum observed.

79. Gorman Coulee near Cat Creek, Mont. (6-1297)

Location .- Lat 47°01', long 108°06', in SW4SW4 sec.31, T.15 N., R.29 E., at culvert on State Highway 20, 6 miles southwest of Cat Creek.

Drainage area. -- 2.32 sq mi.

Records available .-- July 1955 to

Gage .-- Crest-stage gage installed July 14, 1955. Altitude of gage is 2,740 ft (from topographic map).

Annual maximum	data		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1955	Aug. 23, 1955	5.59	385
1956	June 18, 1956	2.73	126
1957	Aug. 30, 1957	1.37	43
1958	July 19, 1958	2.09	83
1959	June 26, 1959	1.84	68
1960	una una	ent 100	Unknown
1961	tine tine	ton two	(c)
1962 1963	May 16, 1962	1.06	28
1963	and sup	tota que	< 5
1964	Aug. 20, 1964	1.89	70
1965	July 10, 1965	4.05	237
1966	March 1966	.14	5
1967	June 7, 1967	5.00	328
1968	Aug. 15, 1968	•79	20

80. Gorman Coulee tributary near Cat Creek, Mont. (6-1298)

Location. -- Lat 47°01', long 108°06', in SE4SW4 sec.31, T.15 N., R.29E., at culvert on State Highway 20, 6 miles southwest of Cat Creek. Drainage area. -- 0.81 sq mi.

Records available. -- May 1955 to Gage. -- Crest-stage gage installed May 27, 1955. Altitude of gage is 2,760 ft (from topographic map).

Amidal maximum	uata		
Water year	Date	Gage height (ft)	Discharge (cfs)
1955 .	Aug. 23, 1955	3.02	159
1956	June 18, 1956	•96	32
1957	Aug. 30, 1957	1.24	<u> </u>
1958	July 31, 1958	2.52	122
1959	Sept. 22, 1959	.28	10
1960	Mar. 18, 1960	•37	12
1961 1962	Aug. 10, 1961	.50	15
1962	May 16, 1962	•55	17
1963	was one	and one	< 5
1964	Aug. 20, 1964	1.85	78
1965	July 10, 1965	2.74	133
1966	Mar. 9, 1966	b .52	a 5
1967	June 7, 1967	4.14	230
1968	June 9, 1968	• 94	31
•	. , .	· ·	_

a About.

b Backwater from ice.

c No evidence of flow during year.

81. Cat Creek near Cat Creek, Mont. (6-1306)

Location. -- Lat 47°03', long 108°01', in SW sec. 23, T.15 N. R.29 E., at culvert on county road, 2½ miles south of Cat Creek.

Drainage area. -- 36.5 sq mi.

Records available. -- April 1958 to

Gage. -- Crest-stage gage installed Apr. 19, 1958. Altitude of gage is 2,650 ft (from topographic map).

Cooperation .-- Montana State Water Conservation Board.

Annual maximum data	
Water year Date Gage height (ft)	Discharge (cfs)
1958 Aug. 15, 1958 2.76	92
1959 Mar. 12, 1959 4.58	170
1960 Mar. 18, 1960 5.85	379
1961 June 23, 1961 1.27	40
1962 June 16, 1962 6.19	748
1963 June 29, 1963 .72	26
1964 Aug. 20, 1964 2.61	90
1965 May 7, 1965 3.56	125
1966 Mar. 10, 1966 1.35	43
1967 June 7, 1967 .55	13
1968 Feb. 26, 1968 b 1.22	a 5

82. Second Creek tributary near Jordan, Mont. (6-1308)

Location. -- Lat 47°12', long 106°48', in NW4NW4 sec.31, T.17 N., R.39 E., at culvert on State Highway 22, 11 miles southeast of Jordan.

Drainage area. -- 0.75 sq mi.

Records available .-- March 1958 to

Gage.--Crest-stage gage installed Mar. 18, 1958. Altitude of gage is 2,750 ft (from topographic map).

Cooperation .-- Montana State Water Conservation Board.

Annual maximum	<u>aata</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1954	e Aug. 16, 1954	9.64	334
1958		THE NAME	(c)
1959	Mar. 17, 1959	1.22	13
1960	Mar. 18, 1960	1.75	21
1961			(c)
1962	Mar. 18, 1962	1.10	12
1963	Feb. 4, 1963	b 2.00	a 5
1964	June 18, 1964	9.62	304
1965	April 1965	1.58	18
1966	July 2, 1966	•91	8
1967	June 7, 1967	1.90	24
1968	Feb. 26, 1968	b 2.54	a 10

a About.

b Backwater from ice.

c No evidence of flow during year.

e Prior to installation of gage; peak discharge computed from highwater marks along highway embankment at culvert.

83. Second Creek tributary No. 2 near Jordan, Mont. (6-1308.5)

Location. -- Lat 47°12', long 106°49', in NW sec. 25, T.17 N., R.38 E., at culvert on State Highway 22, 9½ miles southeast of Jordan.

Drainage area. -- 1.90 sq mi.

Records available. -- March 1958 to

Gage.--Crest-stage gage installed Mar. 18, 1958. Altitude of gage is 2,750 ft (from topographic map).

Cooperation .-- Montana State Water Conservation Board.

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1958	June 1958	0.86	23
1959	Mar. 17, 1959	1.7	58
1960	Mar. 18, 1960	1.98	75
1961	Sept. 11, 1961	37	a 2
1962	Mar. 18, 1962	.51	15
1963	Feb. 26, 1963	.82	20
1964	June 18, 1964	8.40	760
1965	Mar. 31, 1965	1.65	55
1966	July 2, 1966	• 140	13
1967	June 7, 1967	• 73	20
1968	Feb. 26, 1968	.26	10
	·		

84. Second Creek tributary No. 3 near Jordan, Mont. (6-1309)

Location. -- Lat 47°13', long 106°50', in NW sec. 23, T.17 N., R.38 E., at culvert on State Highway 22, 82 miles southeast of Jordan.

<u>Drainage area.--0.60 sq mi.</u> Records available.--July 1958 to

Gage. -- Crest-stage gage installed July 23, 1958. Altitude of gage is 2,780 ft (from topographic map).

Cooperation. -- Montana State Water Conservation Board.

AILIUAL MAXIMUM	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1958	tone time	time time	(c)
1959	Mar. 3, 1959	1.77	31
1960	Mar. 18, 1960	1.03	18
1961	June 1, 1961	•23	a 3
1962	July 14, 1962	.81	14
1963	July 18, 1963	• ¹ +7	8
1964	June 18, 1964	13.32	4.58
1965	Mar. 31, 1965	1.44	25
1966	Mar. 10, 1966	•39	7
1967	Mar. 22, 1967	•75	13
1968	Feb. 26, 1968	.76	13
	, ,	*	

a About.

c No evidence of flow during year.

85. Little Dry Creek near Van Norman, Mont. (6-1309.5)

Location .- Lat 47°21', long 106°22', in SE4 sec.4, T.18 N., R.42 E., at bridge on State Highway 20, 12 miles southeast of Van Norman. Drainage area. -- 1,224 sq mi.

Records available. -- May 1958 to Gage. -- Crest-stage gage installed May 5, 1958. Altitude of gage is 2,350 ft (from topographic map).

Cooperation .-- Montana State Water Conservation Board .

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1958	July 6, 1958	0.83	160
1959	Mar. 18, 1959	6.80	5,200
1960	Mar. 20, 1960	b 7.6	a 4,000
1961	Sept. 11, 1961	3.08	1,320
1962	Mar. 22, 1962	2.32	1850
1963	Feb. 6, 1963	b 2.49	a 800
1964	July 5, 1964	2.88	1,200
1965	Aug. 6, 1965	6.01	g 4,300
1966	July 3, 1966	4.39	2,1,50
1967	March 1967	b 3.19	a 600
1968	July 16, 1968	4.28	2,350

86. Livermore Creek near Babb, Mont. (6-1322.5)

Location. -- Lat 48°46', long 113°11', in NE¹/₄ sec. 28, T.35 N., R.12 W., at bridge on State Secondary Highway 464, 13½ miles southeast of Babb.

Drainage area. -- 25.0 sq mi. Records available .-- August 1961 to September 1967 (discontinued). Gage. -- Crest-stage gage installed Aug. 13, 1961. Altitude of gage is 4,730 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1961			Unknown
1962	Apr. 13, 1962	3.43	152
1963	July 5, 1963	2.62	75
1964	June 8, 1964	and are	4,880
1965	May 26, 1965	7.21	1,150
1966	June 4, 1966	7.41	196
1967	May 9, 1967	7.60	a 600
- /0/		7 .00	3. 3. 3.

a About.

b Backwater from ice.

g May have been greater April 1 during ice period.

87. Middle Fork Milk River near Babb, Mont. (6-1323)

Location .-- Lat 48°51', long 113°13', in SE1 sec. 30, T.36 N., R.12 W., at culvert on State Secondary Highway 464, 10 miles east of Babb. Drainage area. -- 14.0 sq mi.

Records available. -- August 1961 to September 1964 (discontinued). Gage. -- Crest-stage gage installed Aug. 13, 1961. Altitude of gage is 4,810 ft (from topographic map).

AIIIUAL MAXIMUM	<u>uata</u>		
Water year	Date	Gage height (ft)	<u>Discharge (cfs)</u>
1961			Unknown
1962	Apr. 13, 1962	2.62	107
1963	July 5, 1963	b 2.12	a 30
1964	June 8, 1964	2.96	558
· ·	,	· ·	* *

88. Dry Fork Milk River near Babb, Mont. (6-1324)

Location. -- Lat 48°50', long 113°12', in SE4 sec.32, T.36 N., R.12 W, at bridge on State Secondary Highway 464, 11 miles east of Babb. Drainage area. -- 17.4 sq mi.

Records available .-- August 1961 to

Gage .-- Crest-stage gage installed Aug. 13, 1961. Altitude of gage is 4,750 ft (from topographic map).

Annual maximum	data	_	
Water year	Date	Gage height (ft)	Discharge (cfs)
1961	000 000		Unknown
1962	Apr. 13, 1962	3.96	394
1963	July 5, 1963	2.41	70
1964	June 8, 1964	5.20	1,880
1965	Apr. 26, 1965	3.92	[*] 98
1966	June 4, 1966	· 4.32	450
1967	May 8, 1967	4.79	1,040
1968	May 22, 1968	3.45	125

a About.

b Backwater from ice or debris.

89. Milk River near Del Bonita, Mont. (6-1327)

Location. -- Lat 48°57', long 112°45', in center of N\frac{1}{2} sec.23, T.37 N.,

R.9 W., at bridge on State Secondary Highway 483, 3\frac{1}{2} miles southeast of customs post at Del Bonita.

Drainage area. -- 325 sq mi.

Records available. -- August 1961 to September 1967 (discontinued). (Seasonal record station April 1962 to November 1964).

Gage. -- Crest-stage gage installed Aug. 12, 1961. Altitude of gage is 4,030 ft (from topographic map).

Annual	maximum	data

Ammuar maxrmum	ua va •		
Water year	Date	Gage height (ft)	Discharge (cfs)
1961		-	Unknown
1962	Apr. 14, 1962	b 4.13	a 800 ·
1963	Feb. 6, 1963	b 5.10	d 765
1964	June 8, 1964	9.0	17,300
1965	Apr. 13, 1965	4.87	1,600
1966	June 5, 1966	5.39	2,330
1967	May 8, 1967	6.98	6,600
· · · · · · · · · · · · · · · · · · ·			,

90. Van Cleeve Coulee tributary near Sunburst, Mont. (6-1348)

Location. -- Lat 48°53', long lll°1+9', on north line of NE4 sec.14, T.36 N., R.2 W., at culverts on county road, 3.7 road miles east of interchange on Interstate 15 at Sunburst.

Drainage area. -- 10.8 sq mi.

Records available .-- April 1963 to

Gage. -- Crest-stage gage installed Apr. 17, 1963. Altitude of gage is 3,340 ft (from topographic map).

Annual maximum	data	1	
Water year	Date	Gage height (ft)	Discharge (cfs)
1963	men trak		(c)
1964	May 3, 1964	2.08	35
1965	Apr. 7, 1965	4.00	239
1966	Mar. 9, 1966	1.55	15
1967	Mar. 22, 1967	b 3.80	a 110
1968	Feb. 28, 1968	1.15	10
	,		

a About.

b Backwater from ice.

c No evidence of flow during year.

d Maximum observed.

91. Sage Creek tributary at Hingham, Mont. (6-1379)

Location. -- Lat 48°34', long 110°25', in center sec.3, T.32 N., R.10 E., at culvert on farm road, half a mile northeast of Hingham.

Drainage area. -- 1.08 sq mi.

Records available .-- May 1959 to

Gage. -- Crest-stage gage installed May 27, 1959. Altitude of gage is 3,000 ft (from topographic map).

Annual maximum	aata		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	Mar. 17, 1960	1.51	14
1961			(c)
1962	June 14, 1962	5.46	299
1963	July 3, 1963	2.27	26
1964	April 1964	.06	.1
1965	Apr. 9, 1965	2.71	45
1966	Mar. 9, 1966	1.40	. 18
1967	Feb. 26, 1967	1.36	17
1968			(c)
· ·			

92. South Fork Spring Coulee near Havre, Mont. (6-1387)

Location. -- Lat 48°25', long 109°50, in NEt sec.31, T.31 N., R.15 E., at culvert on county road, 12 miles southwest of Havre.

<u>Drainage area</u>.--6.47 sq mi. <u>Records available</u>.--May 1959 to

Gage. -- Crest-stage gage installed May 26, 1959. Altitude of gage is 2,770 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	Mar. 17, 1960	2.04	33
1961	May 31, 1961	•Oj+	2
1962	Mar. 18, 1962	1.68	25
1963	June 22, 1963	2.06	34
1964	May 3, 1964	.10	2
1965	April 1965	2,47	<u> ነ</u> ተታተ
1966	Mar. 9, 1966	4.42	190
1967	Feb. 27, 1967	3.15	59
1968	Feb. 29, 1968		.1

93. Spring Coulee near Havre, Mont. (6-1388)

Location. -- Lat 48°25', long 109°52', in NW sec.25, T.31 N., R.14 E., at culverts on county road, 13 miles southwest of Havre.

Drainage area. -- 17.8 sq mi.

Records available. -- May 1959 to

Gage. -- Crest-stage gage installed May 26, 1959. Altitude of gage is

2,670 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	e Mar. 11, 1959 Mar. 17, 1960	5.60	257
1960	Mar. 17, 1960		a 10
1961 1962			(c)
1962	Mar. 18, 1962	1.32	148
1963	Feb. 3, 1963	1. 35	46
1964	pen pen		(c)
1965	Apr. 6, 1965	2.01	77
1966	Mar. 9, 1966	6.24	345
1967	Mar. 22, 1967	3.41	146
1968	·		(c)

a About.

c No evidence of flow during year.

e Prior to installation of gage; peak discharge computed from high-water marks along highway embankment at culvert.

94. Big Sandy Creek near Assinniboine, Mont. (6-1395)

Location. -- Lat 48°32', long 109°50', in SW4SW4 sec.18, T.32 N., R.15 E., 2 miles northwest of Assinniboine.

Drainage area.--1,805 sq mi.

Records available.--February 1946 to November 1953 (continuous record), April 1955 to September 1967 (discontinued).

Gage. -- Water-stage recorder re-installed Apr. 9, 1955. Altitude of gage is 2,510 ft (by barometer).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1946	Feb. 27, 1946	-	h 86
1947	Mar. 21, 1947	9.68	i 2,080
1948	Mar. 22, 1948		h 17
1949	Mar. 31, 1949		h 5
1950	Mar. 29, 1950	3.88	208
1951	Mar. 23, 1951	5.01	3,91
1952	Apr. 3, 1952	14.70	5,570
1953	June 6, 1953	6.56	714
1954			Unknown
1955	Apr. 11, 1955	6.48	698
1956	Mar. 30, 1956	b 6.47	a 550
1957	Feb. 28, 1957	b 5.13	a 250
1958	Mar. 28, 1958		a 500
1959	Mar. 11, 1959	7.80	1,100
1960	Mar. 25, 1960	a 4.1	215
1961	June 3, 1961	3.64	132
1962	June 12, 1962	2.54	6
1963	Feb. 6, 1963	2.16	-1
1964	May 19, 1964	6.62	700
1965	Apr. 12, 1965	11.31	2,950
1966	Mar. 9, 1966 June 13, 1967	8.07	1,200
1967	omie 13, 1907	6.08	630

a About.

b Backwater from ice.

h Maximum daily.

i Maximum recorded.

95. Bullhook Creek near Havre, Mont. (6-1404)

Location. -- Lat 48°31', long 109°38', in NE¹/₄ sec. 27, T.32 N., R.16E., at bridge on county road, 3½ miles south of Havre.

Drainage area. -- 39.6 sq mi.

Records available .-- May 1959 to

Gage. -- Crest-stage gage installed May 26, 1959. Altitude of gage

is 2,610 ft (from topographic map).

Annual maximum	<u>aata</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	Mar. 18, 1960	1.84	85
1961			(c)
1962	Mar. 18, 1962	1.49	55
1963	Feb. 24, 1963	.86	13
1964	May 4, 1964	1.38	47
1965	Aug. 23, 1965	3.68	250
1966	Mar. 9, 1966	3.87	265
1967	Mar. 22, 1967	2.44	135
1968	Feb. 24, 1968	1.75	75
1900	160. 24, 1900	T•()	

96. Milk River tributary near Lohman, Mont. (6-1419)

Location. -- Lat 48°35', long 109°26', in SW sec. 30, T.33 N., R.18E., at culvert on U. S. Highway 2, 1.2 miles west of Lohman.

Drainage area. -- 0.16 sq mi.
Records available. -- May 1959 to

Gage. -- Crest-stage gage installed May 26, 1959. Altitude of gage

is 2,450 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	Mar. 15, 1960	0.24	0.4 (revised)
1961			(c)
1962			(c)
1962 1963			(c)
1964	·	-	(c)
1965	July 7, 1965	•96	_a 5
1966	July 7, 1965 Mar. 9, 1966	1.24	a 5 a 8
	Mar. 22, 1967	.48	1.4
1967 1968			(c)

a About. c No evidence of flow during year.

Location. -- Lat 48°13', long 108°02', in NE¹/₄ sec.1, T.28 N., R.28 E., at bridge on U. S. Highway 191, 12 miles southwest of Malta.

Drainage area. -- 6.64 sq mi.

Records available. -- July 1955 to September 1967 (discontinued).

Gage. -- Crest-stage gage installed July 27, 1955. Altitude of gage is 2,450 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1956	July 3, 1956	1.98	a 100
1957	Mar. 19, 1957	1.85	a 90
1958	April 1958	1.02	28
1959	Mar. 13, 1959	b 2.93	a 60
1960	Mar. 18, 1960	b 3.21	Not determined
1961	May 30, 1961	1.04	29
1962	July 18, 1962	2.96	a 200
1963	Feb. 5, 1963	Ъ 2.93	Not determined
1964	May 3, 1964	3.16	a 220 .
1965	May 7, 1965	2.45	a 150
1966	March 1966	•91	23
1967	March 1967	ъ2.68	a 50

98. Alkali Creek near Malta, Mont. (6-1552)

Location. -- Lat 48°16', long 107°58', near center sec.16, T.29 N., R.29 E., at bridge on U. S. Highway 191, 84 miles southwest of Malta.

Drainage area. -- 162 sq mi.

Records available. -- July 1955 to

Gage.--Crest-stage gage installed July 27, 1955. Altitude of gage is 2,270 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1956	Mar. 19, 1956	ъ 0.85	a 45
1957	Mar. 21, 1957	1.69	355
1958	Mar. 25, 1958	.82	104
1959	Mar. 13, 1959	b 3.0	a 800
1960			Unknown
1961		(f)	<220
1962	July 14, 1962	2.68	750
1963	Feb. 5, 1963	ъ 3.09	a 700
1964	May 4, 1964	1.36	245
1965	April 1965	a 1+.0	Not determined
1966		(f)	<10
1967	Mar. 22, 1967	ъ 4.43	Not determined
1968		(f)	< 10

a About.

b Backwater from ice.

f Peak discharge did not reach bottom of gage.

99. Disjardin Coulee near Malta, Mont. (6-1553)

Location .-- Lat 48°16', long 107°58', in SE4NW4 sec.16, T.29 N., R.29 E., at bridge on U. S. Highway 191, 8 miles southwest of Malta.

Drainage area. -- 3.42 sq mi.

Records available. -- July 1955 to

Gage .-- Crest-stage gage installed July 26, 1955. Altitude of gage is 2,290 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1956	Aug. 5, 1956	3.22	160
1957	Mar. 19, 1957	1.02	22
1958	mer man		(c)
1959	Mar. 18, 1959	1.62	132
1960	Mar. 18, 1960	.61	32
1961	May 30, 1961	• 7+7+	20
1962	July 18, 1962	2.23	a 200
1963	Feb. 5, 1963	b 3.25	a 1.00
1964	Aug. 20, 1964	•38	7
1965	Apr. 12, 1965	5.15	a 360
1966	March 1966	1.37	34
1967	Mar. 22, 1967	1.89	90
1968	Feb. 28, 1968	.47	15

100. South Fork Taylor Creek near Malta, Mont. (6-1554)

Location. -- Lat 48°19', long 107°55', in SE1 sec.26, T.30 N., R.29 E., at bridge on U. S. Highway 191, 3½ miles southwest of Malta.

Drainage area. -- 5.08 sq mi.

Records available. -- July 1955 to Gage. -- Crest-stage gage installed July 28, 1955. Altitude of gage is 2,290 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1956	Mar. 19, 1956	1.75	52
1957	Mar. 19, 1957	1.43	22.
1958		and the	(c)
1959	July 13, 1959	1.94	84
1960	Mar. 18, 1960	1.89	75
1961	July 30, 1961	•90	2
1962	July 18, 1962	1.54	65
1963	Feb. 5, 1963	•95	20
1964			(c) ·
1965	Apr. 12, 1965	.68	<1
1966		men man	(c)
1967	Mar. 22, 1967	b 2.16	a 70
1968	Feb. 28, 1968	.12	<1

a About.

b Backwater from ice.

c No evidence of flow during year.

101. Unger Creek near Vandalia, Mont. (6-1723)

Location. -- Lat 48°22', long 106°48', in SW sec.9, T.30 N., R.38 E., at bridge on U. S. Highway 2, 4½ miles northeast of Vandalia. Drainage area. -- 11.1 sq mi.

Records available .-- April 1958 to

Gage.--Crest-stage gage installed Apr. 15, 1958. Altitude of gage
is 2,220 ft (from topographic map).

Cooperation .-- Montana State Water Conservation Board.

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1958	March 1958	0.92	10
1959	Apr. 1, 1959	1.41	32
1960	Mar. 20, 1960	2.32	225
1961	June 13, 1961	1.02	13
1962	July 1 ¹ +, 1962	3.28	575
1963	June 29, 1963	2.23	1,6
1964	July 19, 1964	1.20	12
1965	May 6, 1965	2.63	330
1966	March 1966	1.15	10
1967	Mar. 27, 1967	b 2.75	a 100
1968	Feb. 28, 1968	b 2.2 ¹ +	a 30
	•		

102. Mooney Coulee near Tampico, Mont. (6-1723.5)

Location. -- Lat 48°17', long 106°1+2', in NW sec.7, T.29 N., R.39 E., at bridge on U. S. Highway 2, 5½ miles east of Tampico.

Drainage area. -- 12.8 sq mi.

Records available. -- August 1960 to

Gage. -- Crest-stage gage installed Aug. 24, 1960. Altitude of gage is 2,220 ft (from topographic map).

Cooperation. -- Montana State Water Conservation Board.

MILLIUAL MANTIMUM	uava		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	diss one		Unknown
1961	June 13, 1961	2.37	J+00
1962	July 14, 1962	2.20	220
1963	Feb. 5, 1963	b 1.30	a 50
1964			(c)
1965	May 1965	. 14	<1
1966	July 13, 1966	.40	2
1967	Mar. 27, 1967	b1.35	85
1968	Feb. 28, 1968	1.05	3 5
· ·	, ,	Ť	

a About.

b Backwater from ice.

c No evidence of flow during year.

103. Milk River tributary No. 2 near Glasgow, Mont. (6-1724)

Location .-- Lat 48°15', long 106°41', in center of sec.29, T.29 N., R.39 E., at bridge on U. S. Highway 2, 32 miles northwest of Glasgow.

Drainage area. --Records available .-- June 1958 to August 1960 (discontinued). Gage .-- Crest-stage gage installed June 28, 1958.

Annual maximum data. --Water year Date Gage height (ft) Discharge (cfs) 1958 Unknown Apr. 1, 1959 1959 1.79 Unknown

104. East Fork Sand Creek near Vida, Mont. (6-1755.5)

Location. -- Lat 47°48', long 105°37', in NW sec.31, T.24 N., R.48 E., at culverts on county road, 5.8 road miles west from State Highway 13 on Sand Creek road, 6 miles southwest of Vida.

Drainage area. -- 8.51 sq mi.

Records available. -- May 1963 to Gage. -- Crest-stage gage installed May 18, 1963. Altitude of gage is 2,200 ft (from topographic map).

AII	nuar maxrmum	uata		
	Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
	1963	June 6, 1963	4.88	600
	1964	June 18, 1964	1.24	94
	1965	Apr. 2, 1965	too too	a 250
	1966	July 2, 1966	5.9	1,180
	1967	March 1967	1.23	94
	1968	Feb. 28, 1968	.76	75
	,		••	

105. West Fork Wolf Creek near Lustre, Mont. (6-1756)

Location. -- Lat 48°23', long 106°00', in SW sec. 3, T.30 N., R.44 E., at bridge on county road, 5 miles west of Lustre.

Drainage area. -- 6.57 sq mi.

Records available. -- June 1955 to September 1967 (discontinued).

Gage. -- Crest-stage gage installed Jnne 9, 1955. Altitude of gage is 2,740 ft (from topographic map).

Annual maximum data .--Gage height (ft) Water year Discharge (cfs) June 26, 1956 Not determined 0.89 1956 1957 Apr. 23, 1957 2.24 Not determined (c) 1958 .68 1959 Mar. 25, 1959 Not determined Mar. 18, 1960 Apr. 3, 1961 Mar. 25, 1962 Mar. 6, 1963 Apr. 1, 1964 1960 1.99 Not determined •33 Not determined 1961 .90 Not determined 1962 .95 1963 Not determined 1964 Not determined 1965 (c) .31 1.16 1966 March 1966 Not determined March 1967 Not determined 1967

106. East Fork Wolf Creek near Lustre, Mont. (6-1757)

Location. -- Lat 48°24', long 105°48', in SE sec. 30, T.31 N., R.46 E., at culverts on county road, 4 miles east of Lustre.

Drainage area. -- 9.61 sq mi.
Records available. -- June 1955 to

Gage. -- Crest-stage gage installed June 9, 1955. Altitude of gage is 2,720 ft (from topographic map).

Annual maximum data .--Water year Date Gage height (ft) Discharge (cfs) 3.24 3.28 1956 April 1956 Not determined 1957 March 1957 Not determined .58 1958 March 1958 Not determined 1959 June 21, 1959 Not determined Mar. 19, 1960 Mar. 5, 1961 June 14, 1962 1960 a 150 1961 a 130 1962 Mar. 6, 1963 1963 a 40 1964 Apr. 1, 1964 a 50 June 16, 1965 March 1966 1965 2.92 Not determined 1966 4.79 Not determined March 1967 a 100 1967 Aug. 15, 1968 3.58 Not determined 1968

a About.

c No evidence of flow during year.

Location. -- Lat 48°14', long 105°46', in sec.29, T.29 N., R.46 E., at bridge on county road, 15 miles northwest of Wolf Point.

<u>Drainage area.--2.46</u> sq mi. <u>Records available.--June 1955</u> to September 1967 (discontinued). <u>Gage.--Crest-stage gage installed June 24, 1955.</u> Altitude of gage

is 2,310 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1955	July 1955	0.50	Not determined
1956	April 1956	1.61	Not determined
1957 1958	March 1957	.89	Not determined (c)
1959 1960	Mar. 25, 1959	•97	Not determined Unknown
1961 1962	Mar. 5, 1961 June 14, 1962	·33 2.46	Not determined Not determined
1963	Aug. 26, 1963	•36	Not determined
1964 1965 1966	May 5, 1964 June 16, 1965 March 1966	.03 1.15 .75 b2.59	Not determined Not determined Not determined
1967	March 1967	b2.59	Not determined

108. Wolf Creek tributary No. 2 near Wolf Point, Mont. (6-1759)

Location. -- Lat 48°12', long 105°45', in sec.11, T.28 N., R.46 E., at bridge on county road, 9½ miles northwest of Wolf Point.

Drainage area. -- 6.54 sq mi.
Records available. -- June 1955 to

Gage. -- Crest-stage gage installed June 24, 1955. Altitude of gage

is 2,240 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1955	July 1955	1.50	Not determined
1956	April 1956	1.92	Not determined
1957	July 14, 1957	2.03	Not determined
1958	Mar. 24, 1958	1.62	Not determined
1959	June 20, 1959	3.81	979
1960	Mar. 18, 1960	3.24	Not determined
1961	May 21, 1961	3.00	Not determined
1962	July 1, 1962	4.78	Not determined
1963	July 10, 1963	4.18	Not determined
1964	May 5, 1964	1.56	Not determined
1965	June 16, 1965	2.66	Not determined
1966	July 2, 1966	3.23	Not determined
1967	March 1967	b 5.40 7.81	Not determined
1968	July 16, 1968	7.81	3,900
	•		

c No evidence of flow during year.

109. Wolf Creek near Wolf Point, Mont. (6-1765)

Location .- Lat 48°06', long 105°41', in N2 sec. 17, T.27 N., R.47 E., 2 miles northwest of Wolf Point.

Drainage area. -- 251 sq mi.

Records available .-- August 1908 to July 1914 and March 1950 to

September 1953 (continuous record), 1954, May 1955 to Gage. -- Water-stage recorder re-installed May 6, 1955. Altitude

of gage is 2,010 ft (from topographic map).

Annual maximum data.--

AIHIUAL MAALMUM	uava			
Water year	Date	Gage height	(ft) <u>Di</u>	scharge (cfs)
1909 1910	Mon 12 15 7	0.50		Unknown d 110
1911	Mar. 13-15, 1 Mar. 19-23, 1	910 3.9		d 154
1912	Apr. 1, 1912	5.9		d 270
1913				Unknown
1914				Unknown
1950	Apr. 18, 1950	5.30		188
1951	Apr. 5, 1951	6.06		324
1952	Apr. 7, 1952	9.25		7,050
1953	June 3, 1953	7.29		1,010
1954	Apr. 4 or 5,	1954 12.9		9,780
1956 1957	Mar. 23, 1956	, F 20		á 60
1958	July 14, 1957 Apr. 1, 1958	7 5.29 3.30		a 180 . a 6
1959	June 21, 1959			a 330
<u>1</u> 960	Mar. 20, 1960		No	t determined
1961	May 22, 1961	5.97		120
1962	June 15, 1962	7.95		1,440
1963	July 11, 1963	5.60		140
1964	May 5, 1964	5.07		, 52
1965	July 8, 1965	6.32		a 480
1966 . 196 7	July 2, 1966 Mar. 29, 196	6.92 7 8.13		950 1,700
1968	July 16, 1968	6.85		420
1,00	0 413 109 1900	0.0)		120

a About.

d Maximum observed.

110. East Fork Duck Creek near Brockway, Mont. (6-1770.5)

Location. -- Lat 47°12', long 105°47', in sec.31, T.17 N., R.47 E., at bridge on county road, 8 miles south of Brockway.

Drainage area. -- 12.4 sq mi.

Records available. -- June 1955 to

Gage. -- Crest-stage gage installed June 13, 1955. Altitude of gage

is 2,660 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1955	July 12, 1955	1.46	106
1956	Mar. 2, 1956	1.08	60
1957	July 14, 1957	3.64	505
1958	July 21, 1958	•19	8
1959	Mar. 18, 1959	2.47	273
1960	Aug. 16, 1960	1.65	140
1961	May 31, 1961	1.62	134
1962	July 14, 1962	1.97	190
1963	June 6, 1963	4.30	650
1964	July 5, 1964	1.31	93
1965	June 16, 1965	2.33	250
1966	July 1, 1966	2.19	224
1967	March 1967	b .85	a 30
1968	Feb. 27, 1968	b.95	a 10
, -			

111. Duck Creek near Brockway, Mont. (6-1771)

Location. -- Lat 47°15', long 105°49', in SE¹/₄ sec.11, T.17 N., R.46 E., at bridge on county road, 5 miles southwest of Brockway.

Drainage area. -- 54.0 sq mi.

Records available. -- 1921-22, miscellaneous measurements only. May 1957 to

Gage.--Crest-stage gage installed May 21, 1957. Altitude of gage is
2,580 ft (from topographic map).

Annual maximum	data		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1957	July 14, 1957	4.00	640
1958	July 3, 1958	1.05	40
1959	Mar. 18, 1959	5.15	1,000
1960	Mar. 20, 1960	3.57	520
1961	June 1, 1961	06	a l
1962	June 6, 1962	2.59	270
1963	June 6, 1963	4.79	890
1964	July 5, 1964	1.76	a 50
1965	June 16, 1965	2.88	31+0
1966	July 1, 1966	1.85	130
1967	March 1967	b 1.57	a 50
1968	Feb. 29, 1968	b 1.60	a 10

a About.

b Backwater from ice.

112. Redwater Creek at Brockway, Mont. (6-1771.5)

Location. -- Lat 47°19', long 105°45', in NW1 sec. 20, T.18 N., R.47E., at bridge on county road, a quarter of a mile northwest of Brockway.

Drainage area. -- 216 sq mi.

Records available .-- January 1958 to

Gage. -- Crest-stage gage installed Jan. 16, 1958. Altitude of gage is 2,550 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1957	e July 1+, 1957	5.8	1,220
1958	July 3, 1958	1.86	130
1959	Mar. 18, 1959	5.53	1,130
1960	Mar. 20, 1960	b 6.94	a 1,000
1961	June 1, 1961	2.26	200
1962	June 6, 1962	5.80	1,220
1963	June 6, 1963	5.45	1,520
1964	July 5, 1964	3.95	790
1965	Apr. 3, 1965	4.56	a 800
1966	March 1966	3.26	1+20
1967	March 1967	2.50	250
1968	Feb. 26, 1968	bl.90	a 50

113. Tusler Creek near Brockway, Mont. (6-1772)

Location. -- Lat 47°18', long 105°39', in SE1 sec.24, T.18 N., R.47E., at bridge on county road, 4 miles east of Brockway.

Drainage area. -- 90.2 sq mi.
Records available. -- October 1956 to

Gage. -- Crest-stage gage installed Oct. 12, 1956. Altitude of gage is 2,550 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1957	Feb. 27, 1957	1.66	200
1958	July 21, 1958	22	14
1959	Mar. 18, 1959	ъ 2.16	a 150
1960	Mar. 20, 1960	1.96	280
1961	Mar. 6, 1961	- ° O+	18
1962	July 19, 1962	3.36	¹ +30
1963	June 6, 1963	2.34	280
1964	July 5, 1964	1.88	215
1965	June 16, 1965	1.15	120
1966	March 1966	1.43	155
1967	March 1967	.73	75
1968		~ []	(10
_/00			~ ~ ~

a About.

b Backwater from ice.

e Prior to installation of gage.

114. Tusler Creek tributary near Brockway, Mont. (6-1772.5)

Location .-- Lat 47°18', long 105°41', in NE1 sec. 26, T.18 N., R.47 E., at bridge on county road, 4 miles east of Brockway.

Drainage area. -- 3.17 sq mi.
Records available. -- September 1956 to

Gage .-- Crest-stage gage installed Sept. 15, 1956. Altitude of gage

is 2,590 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1957	July 14, 1957	0.81	Not determined
1958	000 000	one pee	(c)
1959	Mar. 18, 1959	.46	Not determined
1960	Aug. 16, 1960	1.10	Not determined
1961	one one	time time	(c)
1962	one one	one one	(c)
1963	Feb. 26, 1963	1.49	Not determined
1964	July 5, 1964	7.80	1,610
1965	April 1965	one one	<1
1966	one (m)	tuno cum	(c)
1967	times dread	Com over	(c)
1968	gian pala	one one	(c)

115. Redwater Creek tributary near Brockway, Mont. (6-1773)

Location. -- Lat 47°21', long 105°41', in NE4SE4 sec.2, T.18 N., R.47 E., at culvert on State Highway 20, 4 miles northeast of Brockway.

Drainage area. -- 0.29 sq mi.
Records available. -- 1954, July 1957 to

Gage .-- Crest-stage gage installed Jan. 15, 1958. Altitude of gage is 2,500 ft (from topographic map).

fs)
7 0

a About.

b Backwater from ice.

c No evidence of flow during year.

e Prior to installation of gage; peak discharge computed from highwater marks along highway embankment at culvert.

116. South Fork Dry Ash Creek near Circle, Mont. (6-1773.5)

Location .- Lat 47°18', long 105°35', in NW4 sec. 27, T.18 N., R.48 E., at bridge on county road, 94 miles south of Circle.

Drainage area. -- 5.74 sq mi.

Records available .-- June 1955 to

Gage .-- Crest-stage gage installed June 13, 1955. Altitude of gage

is 2,670 ft (from topographic map).

Alliual maximum	uata		
Water year	Date	Gage height (ft)	Discharge (cfs)
1955	July 12, 1955	2.18	56
1956	Mar. 1, 1956	1.37	17
1957	Feb. 26, 1957	1.58	52
1958	June 3, 1958	•23	3
1959	Mar. 22, 1959	2.12	. 79
1960	Aug. 16, 1960	2.10	85
1961	sure with	Grant St20	(c)
1962	July 14, 1962	1.12	22
1963	June 6, 1963	.76	10
1964	July 5, 1964	1.93	58
1965	June 16, 1965	2.08	66
1966	June 4, 1966	1.52	37
1967	March 1967	1.50	36
1968	PNE serv		(c)

117. McCune Creek near Circle, Mont. (6-1774)

Location. -- Lat 47°21', long 105°35', in NW sec. 3, T.18 N., R.48 E., near bridge on county road, 5 miles south of Circle.

<u>Drainage area.--29.9 sq mi.</u> <u>Records available.--June 1955 to</u>

Gage .-- Crest-stage gage installed June 13, 1955. Altitude of gage is 2,500 ft (from topographic map).

Annual maximum data .--

HILLIUAL MAXIMUM	uala		
Water year	Date	Gage height (ft)	Discharge (cfs)
1955	July 12, 1955	4.32	128
1956	Mar. 20, 1956	3.31	52
1957	July 14, 1957	4.93	175
1958	June 3, 1958	.98	6
1959	Mar. 22, 1959	prite gam.	Unknown
1960	Mar. 20, 1960	5.44	a 150
1961	Mar. 6, 1961	1.36	a 5
1962	July 19, 1962	7.26	235
1963	June 6, 1963	6.29	a 450
1964	July 5, 1964	6.98	a 1,000
1965	June 16, 1965	5.28	180
1966	March 10, 1966	4.70	110
1967	March 1967	3.42	90
1968	June 10, 1968	2.38	a 10

a About.

c No evidence of flow during year.

118. Cow Creek tributary near Vida, Mont. (6-1777)

Location. -- Lat 47°43', long 105°29', in SE½ sec.36, T.23 N., R.48E., at bridge on State Highway 13, 8.8 miles south of Vida, and 20 miles northeast of Circle.

Drainage area .-- 1.71 sq mi.

Records available. -- May 1963 to Gage. -- Crest-stage gage installed May 18, 1963. Altitude of gage is 2,390 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1963	June 5, 1963	4.07	750
1964	me me	me me	(c)
1965	June 15, 1965	•90	20
1 966	July 2, 1966	2.30	200
1967	March 1967	1.25	50
1968	Feb. 26, 1968	.85	17

119. Wolf Creek tributary near Vida, Mont. (6-1778)

Location. -- Lat 47°55', long 105°30', in SE¹/₄ sec.15, T.25 N., R.48E., at bridge on State Highway 13, 11.1 road miles south of the Missouri River bridge near Wolf Point, and 5.5 miles north of

Drainage area. -- 0.91 sq mi.

Records available .-- July 1962 to

Gage. -- Crest-stage gage installed May 18, 1963. Altitude of gage is 2,400 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	July 14, 1962	8.58	Not determined
1963	Aug. 25, 1963	1.83	a 70
1964		me me	(c)
1965	Apr. 13, 1965	3.00	a 150
1966	July 4, 1966	5.45	Not determined
1967	Mar. 22, 1967	b 1.33	21
1968	Feb. 26, 1968	20 .	1
2/00	1000 209 700	V	

a About.

b Backwater from ice

c No evidence of flow during year.

120. Missouri River tributary No. 2 near Brockton, Mont. (6-1812)

Location. -- Lat 48°09', long 104°54', in NE¹/₄ sec.29, T.28 N., R.53 E., at culverts on U. S. Highway 2, 1.2 miles east of Brockton.

Drainage area. -- 1.60 sq mi.

Records available .-- August 1962 to

Gage. -- Crest-stage gage installed May 19, 1963. Altitude of gage is 1,960 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	Aug. 10, 1962	8.08	260
1963	July 24, 1963	8.34	313
1964	Apr. 1, 1964	1.53	53
1965	June 15, 1965	1.88	62
1966	July 4, 1966	1.23	1.8
1967	March 1967	b 2.91	a 40
1968	Aug. 15, 1968	•43	30

a About.

b Backwater from ice.

121. Big Muddy Creek at Plentywood, Mont. (6-1830)

Location. -- Lat 48°46', long 104°35', in NW4NW4 sec. 30, T.35 N., R.55 E., at Plentywood.

Drainage area. -- 850 sq mi.

Records available. -- April 1948 to September 1953 (continuous record),
June 1955 to September 1967 (discontinued).

Gage. -- Crest-stage gage installed June 10, 1955. Recording gage April 1948 to September 1953. Altitude of gage is 1,980 ft (by barometer).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1948	Apr. 19, 1948	15.64	2,850
1949	Mar. 30, 1949	10.49	1,020
1950	Apr. 18, 1950	12.27	1,620
1951	May 3, 1951	11.38	1,360
1952	May 3, 1951 Apr. 8, 1952	19.00	1,360 7,240
1953	June 30, 1953	19.40	8,000
1954			Unknown
1955		(f)	<210
1956	Mar. 22, 1956	ъ 6.63	a 300
1957	July 16, 1957	6.58	413
1958	Mar. 29, 1958	12.92	1,630
1959	June 30, 1959	10.61	945
1960	Mar. 22, 1960	b 17.37	a 3,500
1961	May 30, 1961	6.03	260
1962	Mar. 27, 1962	11.99	1,250
1963	Mar. 22, 1963	b 12.00	a 750
1964	May 3, 1964	7.14	390
1965	Apr. 16, 1965	7.98	500
1966	Mar. 14, 1966	9.58	750
1967	March 1967	12.04	1,300

a About.

b Backwater from ice.

f Peak discharge did not reach bottom of gage.

122. Box Elder Creek near Plentywood, Mont. (6-1831)

Location. -- Lat 48°50', long 104°30', in sec. 34, T.36 N., R.55 E., at culverts on county road, 4 miles northeast of Plentywood.

Drainage area. -- 9.40 sq mi.

Records available .-- June 1955 to

Gage .-- Crest-stage gage installed June 10, 1955. Altitude of gage is 2,200 ft (from topographic map).

Annual maximum da	<u>ata</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1956	March 1956	0.25	0
1957	July 23, 1957	7.24	328
1958	Mar. 30, 1958	i.88	22
1959	June 26, 1959	3.89	126
1960	Mar. 21, 1960	6.24	265
1961	July 30, 1961	1.58	41
1962	Mar. 26, 1962	2.79	65
1963	Sept. 17, 1963	4.06	103
1964	Mar. 31, 1964	5.49	217
1965	Apr. 14, 1965	2.90	72
1966	Mar. 13, 1966	2.98	5 <u>5</u>
1967	Mar. 22, 1967	ъ 5.82	776
1968	March 1968	5.12	- 4 F

123. Box Elder Creek at damsite, near Plentywood, Mont. (6-1832)

Location. -- Lat 48°48', long 104°33', in NE 1/4 sec. 17, T.35 N., R.55 E., at old damsite, 12 miles north of Plentywood.

Drainage area. -- 19.9 sq mi.

Records available. -- 1953, March 1955 to September 1963 (discontinued). Gage. -- Crest-stage gage installed June 10, 1955. Altitude of gage is 2,120 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1953	e June 30, 1953	6.52	6,530
1955	e Mar. 29, 1955	2.42	1890
1956			(c)
1957	July 23, 1957	3.56	1.600
1958	Mar. 30, 1958	•75	210
1959	June 26, 1959	1.38	1-30
1960	Mar. 22, 1960	2.27	820
1961	Mar. 20, 1961	1.26	395
1962	Mar. 26, 1962	1.59	530
1963	Sept. 17, 1963	.81	230

b Backwater from ice. c No evidence of flow during year.

e Prior to installation of gage.

124. Spring Creek near Plentywood, Mont. (6-1833)

Location. -- Lat 48°49', long 104°27', in SW sec. 6, T.35 N., R.55 E., at culvert on county road, 5 miles northeast of Plentywood.

Drainage area. -- 7.05 sq mi.

Records available .-- June 1955 to

Gage. -- Crest-stage gage installed June 10, 1955. Altitude of gage

is 2,260 ft (from topographic map).
Annual maximum data. -

AIIIIUAL MAXIMUM	uata		
Water year	Date	Gage height (ft)	Discharge (cfs)
1955	July 7, 1955	0.69	5
1956			(c)
1957	July 23, 1957	2.77	76
1958	Mar. 30, 1958	1.49	25
1959	June 26, 1959	1.30	20
1960	Mar. 21, 1960	5.19	240
1961	July 30, 1961	1.20	17
1962	Mar. 26, 1962	1.32	24
1963	Sept. 17, 1963	a 2.7	72
1964	Mar. 31, 1964	b 5.45	a 40
1965	Apr. 14, 1965	b .67	a 10
1966	Mar. 13, 1966	2.33	60
1967	April 1967	1.07	16
1900	March 1968	1.80	40

125. Spring Creek at Highway 16, near Plentywood, Mont. (6-1834)

Location. -- Lat 48°46', long 104°31', in SE sec.21, T.35 N., R.55 E., at bridge on State Highway 16, 12 miles east of Plentywood.

<u>Drainage area.--16.9 sq mi.</u>
<u>Records available.--June 1955 to</u>

Gage. -- Crest-stage gage installed June 23, 1955. Altitude of gage

is 2,040 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1955		dus dus	(c)
1956	Apr. 3, 1956	0.74	4
1957	July 23, 1957	3.38	540
1958	Mar. 30, 1958	2.40	230
1959	June 26, 1959	3.70	230 660
1960	May 24, 1960	3.56	600
1961	Mar. 20, 1961	1.02	10
1962	Mar. 26, 1962	2.85	375
1963	Sept. 17, 1963	3.61	620
1964	May 3, 1964	1.24	26
1965	Apr. 15, 1965	1.18	20
1966	Mar. 13, 1966	b 2.77	a 60
1967	April 1967	1.64	80
1968	March 1968	b 2.01	a 40
/00		~ = + 0 =	α . σ

a About.

b Backwater from ice.

c No evidence of flow during year.

126. Big Muddy Creek tributary near Culbertson, Mont. (6-1851)

Location.--Lat 48°12', long 104°42', in center of east edge of sec.11, T.28 N., R.54 E., at culverts on county road, 1.9 miles north of U. S. Highway 2, 10 miles northeast of Brockton, and 9 miles northwest of Culbertson.

Drainage area. -- 7.38 sq mi.

Records available .-- May 1963 to

Gage.--Crest-stage gage installed May 19, 1963. Altitude of gage is 1,940 ft (from topographic map).

Annual maximum	<u>aata</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1963	July 10, 1963	9.6	676
1964	June 18, 1964	3.60	85
1965	June 15, 1965	1.00	20
1966	March 1966	•75	10
1967	Mar. 24, 1967	8.8	3110
1968	Feb. 29, 1968	1.90	4.5

127. Missouri River tributary No. 3 near Culbertson, Mont. (6-1852)

Location. -- Lat 48°06', long 104°31', in center sec.8, T.27 N., R.56 E., at culvert on county road along the south side of the Missouri River, 2.2 miles west of State Highway 16, 3 miles south of Culbertson.

Drainage area. -- 1.29 sq mi.

Records available .-- May 1963 to

Gage. -- Crest-stage gage installed May 19, 1963. Altitude of gage is 1,950 ft (from topographic map).

AIII	iual maximum	<u>uata</u>		
	Water year	Date	Gage height (ft)	Discharge (cfs)
	1963	Aug. 25, 1963	3.88	142
	1964	000 000	non pass	(c)
	1965	man read	time time	<1
	1966	July 4, 1966	tom out	2,570
	1967	March 1967	1.44	14
	1968	Feb. 29, 1968	.87	3
	1900	reb. 29, 1900	. 0 /	. 3

c No evidence of flow during year.

128. Missouri River tributary No. 4 near Bainville, Mont. (6-1853)

Location. -- Lat 48°08', long 104°21', in NW sec. 34, T.28 N., R.57 E., at culvert on U. S. Highway 2, 0.8 miles east of Lannark, 8 miles east of Culbertson.

Drainage area. -- 11.6 sq mi.

Records available. -- May 1963 to Gage. -- Crest-stage gage installed May 19, 1963. Altitude of gage is 2,000 ft (from topographic map).

Annu.	al maximum	data		
W	ater year	Date	Gage height (ft)	Discharge (cfs)
	1963	July 24, 1963	2.83	323
	1964	June 14, 1964	12.02	1,670
	1965	Apr. 17, 1965	2.28	250
	1966	July 4, 1966	5.67	739
	1967	March 1967	3.95	500
	1968	Feb. 29, 1968	2.16	230

129. Missouri River tributary No. 5 at Culbertson, Mont. (6-1854)

Location .-- Lat 48°10', long 104°31', in SE sec. 20, T.28 N., R.56 E., at culvert on State Highway 16, 0.7 miles north of U. S. Highway 2, at Culbertson Rodeo Grounds.

Drainage area. -- 3.67 sq mi.

Records available. -- May 1963 to Gage. -- Crest-stage gage installed May 19, 1963. Altitude of gage is 1,970 ft (from topographic map).

Water year Date Gage height (ft) Discharge (cfs) 1963 July 24, 1963 6.60 495	
1963 July 24. 1963 6.60 495	
1964 June 14, 1964 2.59 128	
1965 Apr. 17, 1965 1.01 a 30	
1966 July 4, 1966 2.14 95	
1967 March 1967 b 2.52 a 90	
1968 Feb. 29, 1968 b .98 a 10	

a About.

b Backwater from ice.

130. Yellowstone River tributary near Greycliff, Mont. (6-2015.5)

Location. -- Lat 45°44', long 109°43', in SE1 sec.23, T.1 S., R.16 E., at culvert on Interstate Highway 90 and U. S. Highway 10, 4 miles southeast of Greycliff.

Drainage area .-- 2.72 sq mi.

Records available. -- May 1959 to Gage. -- Crest-stage gage installed May 5, 1959. Altitude of gage is 3,860 ft (from topographic map).

Annual Maximum	<u>uata</u>		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1960	QUEAT QUIDO	Short Short	(c)
1961	Steel Steel	Stank ervole	(c)
1962	Feb. 8, 1962	0.45	3
1963	June 14, 1963	• 55	} +
1964	Short Street	storil strell	(e)
1965	Aug. 22, 1965	2.31	1+8
1966	Mar. 10, 1966	.48	3
1967	June 14, 1967	1.52	32
1968	Feb. 19, 1968	1.22	16

131. Bridger Creek near Greycliff, Mont. (6-2016)

Location. -- Lat 45°41', long 109°43', in $NW_{\frac{1}{4}}$ sec. 2, T. 2 S., R. 16 E., at bridge on county road, 6 miles southeast of Greycliff. Drainage area .-- 61.5 sq mi.

Records available. -- May 1959 to Gage. -- Crest-stage gage installed May 5, 1959. Altitude of gage is 4,080 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	May 1960	0.62	18
1961	March 1961	03	5
1962	May 26, 1962	1.36	67
1963	June 14, 1963	1.46	71
1964	June 9, 1964	Spires Spires	a 80
1965	Aug. 28, 1965	1.08	58
1966	May 5, 1966	1.38	. 75
1967	June 14, 1967	0100 Strill	2,680
1968	June 9, 1968	3.00	910

a About.

c No evidence of flow during year.

132. Work Creek near Reed Point, Mont. (6-2016.5)

Location. -- Lat 45°42', long 109°38', in SE¹/₄ sec.33, T.1 S., R.17 E., at bridge on county road, 4 miles west of Reed Point.

Drainage area. -- 32.5 sq mi.

Records available .-- May 1959 to

Gage. -- Crest-stage gage installed May 4, 1959. Altitude of gage is 3,820 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	Sept. 21, 1959	2.3	a 100
1960	May 1960	pas pas	a 5
1961			(c)
1962	June 13, 1962	4.08	406
1963	June 14, 1963	1.97	. 19
1964			(c)
1965	Apr. 2, 1965	2.05	25
1966	Mar. 10, 1966	2.48	73
1967	June 14, 1967	4.65	720
1968	June 9, 1968	3.64	320

133. Hump Creek near Reed Point, Mont. (6-2017)

Location. -- Lat 45°42', long 109°35', in NE¹/₄ sec.35, T.1 S., R.17 E., at bridge on Interstate Highway 90 and U. S. Highway 10, 2 miles west of Reed Point.

<u>Drainage area.--7.61</u> sq mi. <u>Records available.--May 1959</u> to

Gage.--Crest-stage gage installed May 4, 1959. Altitude of gage is 3,780 ft (from topographic map).

Annual maximum	data		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1960	Mar. 19, 1960	0.50	15
1961			(c)
1962	June 13, 1962	2.96	307
1963	May 12, 1963	•29	8
1964		(f)	<1
1965	Apr. 2, 1965	.2	5
1966	Mar. 10, 1966	•76	30
1967	June 27, 1967	1.93	130
1968	June 9, 1968	1.62	87

a About.

c No evidence of flow during year.

f Peak discharge did not reach bottom of gage.

134. Berry Creek near Columbus, Mont. (6-2017.5)

Location. -- Lat 45°42', long 109°23', in NW sec.33, T.1 S., R.19 E., at bridge on county road, 8 miles northwest of Columbus.

Drainage area. -- 23.5 sq mi.

Records available .-- May 1959 to

Gage. -- Crest - stage gage installed May 4, 1959. Altitude of gage is 3,700 ft (from topographic map).

Annual maximum	data		
Water Year	Date	Gage height (ft)	Discharge (cfs)
1958	e July 7, 1958	4.54	620
1959	e Mar. 1, 1959	3.86	283
1960	June 15, 1960	.02	Ō
1961	May 15, 1961	.10	0
1962	July 31, 1962	6.62	Not determined
1963	June 14, 1963	2.60	55
1964	Apr. 24, 1964	•53	• 5
1965	Aug. 22, 1965	•52	• 5
1966	Mar. 10, 1966	•31	0
1967	May 1967	.66	.8
1968	June 9, 1968	.83	10

135. Allen Creek near Park City, Mont. (6-2051)

Location. -- Lat 45°36', long 109°03', in NE¹/₄ sec.7, T.3 S., R.22 E., about 200 ft upstream from Cove Ditch flume, 7 miles west of Park City.

Drainage area. -- 7.17 sq mi.

Records available .-- June 1961 to

Gage. -- Crest-stage gage installed June 15, 1961. Altitude of gage is 3,470 ft (from topographic map).

Annual maximum	<u> aata</u>		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1961	e May 24, 1961	5.68	1,580
1962	Feb. 1, 1962	1.30	120(revised)
1963	June 3, 1963	.15	10
1964		tion ton	(c)
1965	Apr. 2, 1965	•35	30(revised
1966	June 19, 1966	2.110	260(revised)
1967	June 17, 1967	2.00	196
1968	Feb. 19, 1968	1.05	90
		· ·	

c No evidence of flow during year.

e Prior to installation of gage.

136. Wets Creek near Billings, Mont. (6-2162)

Location. -- Lat 45°38', long 108°24', in SW4 sec.28, T.2 S., R.27 E., at bridge on county road, 19 miles southeast of Billings.

Drainage area. -- 8.14 sq mi.
Records available. -- May 1955 to

Gage.--Crest-stage gage installed May 26, 1955. Altitude of gage is 3,550 ft (from topographic map).

A	
Annual maximum data	
Water year Date Gage h	neight (ft) Discharge (cfs)
1955 Aug. 25, 1955	a 5
1956 Feb. 22, 1956	3.23 65
1957 June 8, 1957	1.66 105 (revised)
1958 July 2, 1958	.50 40 (revised)
1959 June 4, 1959	1.14 70 (revised)
1960 May 2, 1960	2.50 160 (revised)
1961 May 21, 1961	.40 35 (revised)
1962 Mar. 9, 1962	1.92 118 (revised)
1963 June 8, 1963	2.7 170 (revised)
1964 Apr. 26, 1964	6.9 565
1965 June 25, 1965	2.20 135 (revised)
1966 Mar. 9, 1966	4.18 292 (revised)
1967 June 6, 1967	2.46 155 (revised)
1968 June 9, 1968	1.43

137. West Buckeye Creek near Billings, Mont. (6-2163)

Location. -- Lat 45°39', long 108°24', in NE4 sec.21, T.2 S., R.27 E., 2,000 ft upstream from bridge on county road, 17 miles southeast of Billings.

Drainage area. -- 1.54 sq mi.

Records available . -- May 1955 to

Gage.--Crest-stage gage installed May 26, 1955. Altitude of gage is 3,500 ft (from topographic map).

		* * *	
Annual maximum	data		
<u>Water year</u>	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1955	Aug. 25, 1955	1.54	17
1956	May 29, 1956	2.24	92
1957	May 12, 1957	1.81	185
1958	July 2, 1958	1.31	83
1959	June 4, 1959	•68	15
1960	May 2, 1960	1.16	15 60
1961	May 24, 1961	.80	22
1962	Mar. 9, 1962	1.03	7+7+
1963	June 20, 1963	1.37	a 30
1964	Apr. 26, 1964	4.48	215
1965	Apr. 2, 1965		135
1966	Mar. 10, 1966	3.38 3.8	225
Ī967	June 6, 1967	2.69	149
1968	June 9, 1968	2.62	142
-/00	0 0000	2002	ے ، ب

Location. -- Lat 45°43', long 108°19', in sec.30, T.1 S., R.28 E., at bridge on Interstate Highway 90 and U. S. Highway 87, ll miles southeast of Billings.

Drainage area. -- 435 sq mi.

b Backwater from ice or beaver dam.

Records available .-- September 1911 to September 1924 and March 1938

to December 1953 (continuous record), May 1955 to

Gage.--Crest-stage gage installed May 26, 1955. Wire-weight gage

September 1911 to September 1924 and March 1938 to December 1953.

Altitude of gage is 3,310 ft (by barometer). Annual maximum data .--

Annual maximum			
Water year	Date	Gage height (ft)	Discharge (cfs) d 930 1,130 d 595
1912	July 3, 1912 a Mar. 20, 1913 June 26, 1914	11.2	d 930
1913	a Mar. 20, 1913 June 26, 1914 June 12, 1915	12.54 9.3 9.7 7.01	1,130
1914 1915 1916	June 26, 1914	9-3	d 595
1917	June 12, 1915 May 22, 1916	9.7	d 645
1910	May 22, 1916 June 5, 1917	10.44	d 333
1917	June 5, 1917 Mar. 27, 1918		d /50
1918 1919	Aug. 2, 1919	8.35 7.30	d 344
1926	Mar. 27, 1918 Aug. 2, 1919 May 12, 1920	7.30	d 740
1921	June 9, 1921	10.37 9.60	d 635
1922	June 9, 1921 May 11, 1922	10.37 9.60 7.65	d 635 d 400
1922 1923	Sept. RU. 1923	9,25	d 750 d 480 d 344 d 740 d 635 d 400 d 590
1924	Apr. 4, 1924 June 24, 1938 June 18, 1939 Apr. 16, 1940 Sept. 8, 1941	10.04	d 705
1938 1939	June 24, 1938	7.9 3.35 2.83 4.68	1,230
1939	June 18, 1939	3.35	d 2332 d 208
1940	Apr. 16, 1940	2.83	d 208
1940 1941 1942 1943	Sept. 8, 1941 May 14, 1942	9.2	d 590 d 705 1,230 d 332 d 208 d 607 l,500 h 1,000 d 1,150
1043	Mar. 26, 1943	9.2	h 1,000
1944	June 19, 1944	7 66	d 1,150
1944 1945	June 19, 1944 June 11, 1945	4.80	4 1,100
1946 1947 1948 1949	Mar. 26, 1943 June 19, 1944 June 11, 1945 June 12, 1946	7.66 4.80 3.98	d 489 h 890
1947	Mar. 19, 1947	time time	h 890 d 464
1948	Apr. 20, 1948	3.95 2.22	d. 464
1949	June 3, 1949 Feb. 25, 1950 Mar. 22, 1951	2.22	d 133 h 230
1950 1951	Feb. 25, 1950	b 9.82	h 230
1952	Mar. 22, 1951 May 22, 1952	b 9.82 4.25	d 781 d 424
1953	June 12, 1949 June 12, 1947 Apr. 20, 1948 June 3, 1949 Feb. 25, 1950 Mar. 22, 1951 May 22, 1952 June 7, 1953	2 43	d 145
1953 1954			Unknown
1955	June 16, 1955 Feb. 22, 1956 June 8, 1957 Feb. 20, 1958 Mar. 2, 1959 May 2, 1960 Sept. 20, 1961	3.44	286
1955 1956 1957 1958 1959 1961 1963 1964	Feb. 22, 1956	b 9.12	a 800 825 262 508
1957	June 8, 1957	6.14	825
1958	Feb. 20, 1958	3.26	262
1959	Mar. 2, 1959	4.65	508
1960	May 2, 1960	9.9	1,700 288
1962	Sept. 20, 1961 Mar. 9, 1962 Apr. 28, 1963	3.44	840
1963	Apr. 28. 1963	6.20 8.40	1 330
1964	Apr. 26, 1964	15.04	3,720
1965	Apr. 26, 1964 Apr. 2, 1965 Mar. 11, 1966	7.09	1,330 3,720 1,040 1,440 520
1966	Mar. 11, 1966	7.09 8.84	1,440
1967 1968	anne Ta' Taol	4.72 8.10	1520
1968	June 10, 1968	8.10	1,270
a About.		d Maximum ob	served.

h Maximum daily.

139. Crooked Creek tributary near Shepherd, Mont. (6-2177)

Location. -- Lat 46°04', long 108°30', in SW sec.21, T.4 N., R.26 E., at bridge on county road, 1.7 miles west of U. S. Highway 87 between Billings and Roundup, 12 miles northwest of Shepherd, and 20 miles north of Billings.

Drainage area. -- 7.21 sq mi.

Records available. -- June 1962 to

Gage. -- Crest-stage gage installed Apr. 22, 1963. Altitude of gage is 3,400 ft (from topographic map).

Annual maximum data. --Water year Gage height (ft) Discharge (cfs) e June 4, 1962 1962 13.68 5,120 1963 1,110 June 21, 1963 5.26 June 18, 1964 June 25, 1965 Mar. 8, 1966 June 11, 1967 Sept. 22, 1968 1964 1.76 a 150 1965 47 3.54 7.85 1.46 1966 1967 1968 a 600 1,980 a 150

140. Yellowstone River tributary No. 2 near Pompeys Pillar, Mont. (6-2178)

Location. -- Lat 46°02', long 107°48', in NW sec.6, T.3 N., R.32 E., at culvert on Interstate Highway 94 and U. S. Highways 10 and 312, 0.7 mile west of Spring Creek, 8 miles east of Pompeys Pillar, and 13 miles west of Custer.

Drainage area. -- 0.70 sq mi.

Records available .-- May 1962 to

Gage. -- Crest-stage gage installed Apr. 28, 1963. Altitude of gage is 2,850 ft (from topographic map).

AIIIIUAL MAXIMUM	uata •		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	e May 13, 1962	a 1.5	Not determined
1963		the the	(c)
1964	the Am	tion tion	(c)
1965	dom dario	date date	(c)
1966	Mar. 14, 1966	.20	Not determined
1967		turn time	(c)
1968		tion town	< .1

a About.

c No evidence of flow during year.

e Prior to installation of gage.

141. Andresen Coulee near Custer, Mont. (6-2944)

Location. -- Lat 46°04', long 107°33', in center War sec. 30, T.4 N., R.34 E., at culvert on State Highway 47, 4½ miles south of Custer, and 5.3 road miles south of U. S. Highways 10 and 312.

Drainage area .-- 2.35 sq mi.

Records available .-- April 1963 to

Gage. -- Crest-stage gage installed Apr. 27, 1963. Altitude of gage is 2,820 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	<u>Discharge (cfs)</u>
1963	June 4, 1963	1.57	Not determined
1964	June 18, 1964	1.06	Not determined
1965	Aug. 23, 1965	.87	Not determined
1966	Mar. 9, 1966	tion one	a 5
1967	February 1967	.30	Not determined
1968	June 9, 1968	.90	Not determined

142. Unknown Creek near Bighorn, Mont. (6-2948)

Location. -- Lat 46°12', long 107°25', in SE¹/₄ sec.12, T.5 N., R.34 E., at bridge on Interstate Highway 94 and U. S. Highways 10 and 312, 4 miles east of Bighorn.

Drainage area. -- 14.6 sq mi.

Records available .-- May 1962 to

Gage.--Crest-stage gage installed Apr. 27, 1963. Altitude of gage is 2,690 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	e May 13, 1962	3.98	a 800
1963	June 4, 1963	3.60	657
1964	June 18, 1964	2.73	a 370
1965	July 19, 1965	3.48	61.0
1966	Mar. 9, 1966	b 2.33	a 50
1967	March 1967	b 2.29	a 100
1968	June 9, 1968	1.69	157

a About.

b Backwater from ice.

e Prior to installation of gage.

143. Buckingham Coulee near Myers, Mont. (6-2948.5)

Location. -- Lat 46°14', long 107°17', in SW sec.25, T.6 N., R.35 E., at bridge on Interstate Highway 94 and U. S. Highways 10 and 312, 3 miles southeast of Myers, and 5 miles southwest of Hysham.

Drainage area. -- 2.63 sq mi.

Records available .-- May 1962 to

Gage. -- Crest-stage gage installed Apr. 27, 1963. Altitude of gage is 2,820 ft (from topographic map).

Annual maximum data. --

manimum manimum	uava.		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	e May 13, 1962	1.10	20
1963	June 4, 1963	.50	6
1964	June 18, 1964	2.20	122
1965	July 9, 1965	3.84	398
1966	Mar. 9, 1966	b 1.84	a 40
1967	June 12, 1967	.78	11
1968	June 13; 1968	1.08	20

144. Middle Fork Froze to Death Creek tributary near Ingomar, Mont. (6-2949)

Location. -- Lat 46°35', long 107°24', in NE¹/₄ sec.35, T.10 N., R.34E., at culverts on U. S. Highway 12, 1.1 miles west of Ingomar.

Drainage area. -- 1.36 sq mi.
Records available. -- July 1962 to

Gage. -- Crest-stage gage installed May 16, 1963. Altitude of gage is 2,990 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	e July 16, 1962	9.08	463
1963	June 21, 1963	1.30	7+7+
1964	June 18, 1964	1.95	65
1965	July 10, 1965	5.44	300
1966	July 15, 1966	1.55	52
1967	June 18, 1967	1.89	67
1968	June 9, 1968	1.57	54
1964 1965 1966 1967 1968	July 10, 1965 July 15, 1966 June 18, 1967	1.95 5.44 1.55 1.89 1.57	300 52 67 54

a About.

b Backwater from ice.

e Prior to installation of gage.

145. Yellowstone River tributary No. 3 near Forsyth, Mont. (6-2950.2)

Location. -- Lat 46°18', long 106°40', in NW sec.12, T.6 N., R.40 E., at bridge on county road, 2.4 road miles northeast of U. S. Highway 12, and 2 miles north of Forsyth.

Drainage area. -- 4.38 sq mi.

Records available .-- June 1962 to

Gage. -- Crest-stage gage installed Apr. 27, 1963. Altitude of gage is 2,550 ft (from topographic map).

data		
Date		Discharge (cfs)
e June 15, 1962	4.84	4.06
June 19, 1963	1.30	20
Aug. 29, 1964	1.67	35
	6.64	938
	6.20	790
March 1967	2.71	105
March 1968	b 4.23	a 100
	Date e June 15, 1962 June 19, 1963 Aug. 29, 1964 July 12, 1965 June 4, 1966 March 1967	Date e June 15, 1962 June 19, 1963 Aug. 29, 1964 July 12, 1965 June 4, 1966 March 1967 Gage height (ft) 4.84 1.30 1.67 6.64 6.20 2.71

146. Little Porcupine Creek near Forsyth, Mont. (6-2950.5)

Location. -- Lat 46°18', long 106°34', in NE sec. 3, T.6 N., R.41 E., at bridge on county road, 6 miles northeast of Forsyth.

<u>Drainage area.--614 sq mi.</u>

Records available .-- May 1958 to

Gage. -- Crest-stage gage installed May 9, 1958. Altitude of gage is 2,480 ft (from topographic map).

Cooperation .-- Montana State Water Conservation Board.

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1958	June 3, 1958	4.9	1,480
1959	Mar. 20, 1959	7.08	2,650
1960	Mar. 20, 1960	7.17	2,700
1961	Sept. 20, 1961	8.1 ¹ +	3,320
1962	June 15, 1962	4.53	1,310
1963	June 3, 1963	5.98	2,030
1964	Apr. 27, 1964	2.75	680
1965	Apr. 1, 1965	9.00	3.750
1966	July 2, 1966	4.57	1,350
1967	June 12, 1967	5.16	1,600
1968	Feb. 29, 1968	4.03	1,100

a About.

b Backwater from ice.

e Prior to installation of gage.

147. Rosebud Creek near Kirby, Mont. (6-2951)

Location. -- Lat 45°14', long 106°57', in NE as sec.16, T.7 S., R.39 E., at culvert on private road, 7 miles south of Kirby.

Drainage area. -- 34.2 sq mi.

Records available .-- April 1959 to

Gage. -- Crest-stage gage installed Apr. 15, 1959. Altitude of gage is 4,180 ft (from topographic map).

Annual maximum	data		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1960	Mar. 19, 1960	1.78	55
1961			(c)
1962	June 16, 1962	1.45	jljt
1963	Apr. 28, 1963	2.67	85
1964	Apr. 26, 1964	2.24	60
1965	Apr. 1, 1965	b 4.78	a 250
1966	June 22, 1966	2.50	78
1967	June 12, 1967	5.20	287
1968	June 9, 1968	5.72	540
1967 1968	June 12, 1967	5.20 5.72	287 540

148. Rosebud Creek tributary near Busby, Mont. (6-2951.3)

Location. --Lat 46°35', long 106°52', in NE¹/₄ sec.13, T.3 S., R.39 E., at bridge on U. S. Highway 212, 1.1 miles east of Two Moon Creek, 6 miles northeast of Busby.

Drainage area. -- 1.14 sq mi.

Records available. -- April 1963 to

Gage. -- Crest-stage gage installed Apr. 23, 1963. Altitude of gage is 3,310 ft (from topographic map).

Annual maximum	<u>aata</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1963	Oran Marin	gung gunn	(c)
1964	June 18, 1964	1.31	10
1965	Aug. 21, 1965	1.23	8
1966	Mar. 11, 1966	b .81	a l
1967	March 1967	•99	6
1968	February 1968	b 1.17	a 3

a About.

b Backwater from ice.

c No evidence of flow during year.

149. Ridgewalker Creek near Busby, Mont. (6-2951.5)

Location. -- Lat 45°36', long 106°19', in NE¹/₄ sec. 8, T.3 S., R.40 E., at bridge on State Highway 8, 8 miles east of Busby.

Drainage area. -- 2.24 sq mi.

Records available .-- April 1959 to September 1962 (discontinued). Gage .-- Crest-stage gage installed Apr. 15, 1959. Altitude of gage is 3,300 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	March 1959	Street States	<5
1960	Mar. 20, 1960	0.83	Unknown
1961	July 20, 1961	.10	Unknown
1962	July 27, 1962	1.40	Unknown

150. Whitedirt Creek near Lame Deer, Mont. (6-2952)

Location. -- Lat 45°36', long 106°44', in NE4 sec.2, T.3 S., R.40 E., at bridge on county road, 42 miles west of Lame Deer.

Drainage area .-- 1.58 sq mi.

Records available . -- April 1959 to

Gage .-- Crest-stage gage installed Apr. 15, 1959. Altitude of gage is 3,290 ft (from topographic map). Annual maximum data .--

SECTION OF PERSONS IN COLUMN TWO IS NOT THE OWNER, THE PERSON IS NOT THE O	THE PERSON AND THE PE		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	March 1959	Side Sens	1-
7960	Mar. 20. 1960	0 50	a 5
7.0/7		0.59	3
1961	Sept. 10, 1961	. 32	ž
1962	February 1962	52	5
7062		• 23	3
1903	June 3, 1963	1.38	31
1964	June 8, 1964	حيا ٦	2 2
7065		1.075	33
1,707	July 1, 1965	.86	8
1966	Sept. 12. 1966	1.37	3.0
7967	June 12, 1967	7 0 7	30
7666		1.3	19
7,700	June 13, 1968	1.68	4.5
			. /

151. Rosebud Creek near Forsyth, Mont. (6-2960)

Location .-- Lat 46°11'50", long 106°28'25", in SW sec.9, T.5 N., R.42 E., 10 miles southeast of Forsyth.

Drainage area. -- 1,260 sq mi.

Records available. -- May 1947 to December 1953 (continuous record),

July 1955 to September 1967 (discontinued).

Gage. -- Water-stage recorder re-installed July 15, 1955. Altitude

of gage is 2,540 ft (by barometer).

Annual maximum data. --

AIIIIual maximum	uava		
Water year	Date	Gage height (ft)	
1948	July 21, 1948	8.41	382
1949	Mar. 8, 1949	8.96	418
1950	June 9, 1950	7.90	250
1951	Sept. 1, 1951	8.42	280
1952	Mar. 29, 1952	7.81	269
1953	May 30, 1953	10.27	d 596
1954			Unknown
1955			< 50
1956	March 1956	8.78	a 350
1957	June 17, 1957	8.78	342
1958	March 1958		Not determined
1959	Mar. 3, 1959		a 570
1960	March 1960		Unknown
1961	Sept. 10, 1961	9.58	435
1962	June 7, 1962	9.16	378
1963	June 16, 1963	6.58	182
1964	June 19, 1964	9.49	420
1965	Apr. 1, 1965	10.42	a 600
	June 4, 1966		
1967	June 19, 1967	7.79	265
1966 1967	June 4, 1966 June 19, 1967	7.07 7.79	215 265

a About.

d Maximum observed.

152. Snell Creek near Hathaway, Mont. (6-2961)

Location. -- Lat 46°18', long 106°09', in NW sec.7, T.6 N., R.45 E., at bridge on old U. S. Highways 10 and 12, 2½ miles northeast of Hathaway, and about 3 miles southwest of Cottonwood Creek.

Drainage area. -- 10.5 sq mi.

Records available .-- April 1963 to

Gage. -- Crest-stage gage installed Apr. 26, 1963. Altitude of gage is 2,550 ft (from topographic map).

<u>data</u>		
Date	Gage height (ft)	Discharge (cfs)
June 3, 1963	1.69	a 170
Aug. 29, 1964	•30	<u>,</u> 1
June 14, 1965		a 340
June 4, 1966	2.35	a 380
June 7, 1967	1.3	.85
Feb. 26, 1968	1.05	45
	Date June 3, 1963 Aug. 29, 1964 June 14, 1965 June 4, 1966 June 7, 1967	Date June 3, 1963 Aug. 29, 1964 June 14, 1965 June 4, 1966 June 7, 1967 Gage height (ft) 1.69 2.20 2.35 1.3

153. Spring Creek near Decker, Mont. (6-3069)

Location. -- Lat 45°05', long 106°50', in NW sec. 33, T.8 S., R.40 E., at bridge on county road, 5 miles north of Decker.

Drainage area. -- 36.3 sq mi.

Records available .-- May 1958 to

Gage. -- Crest-stage gage installed May 9, 1958. Altitude of gage is 3,500 ft (from topographic map).

Cooperation .-- Montana State Water Conservation Board .

AM	iual maximum	aata		
	Water year	Date	Gage height (ft)	Discharge (cfs)
	1958	June 7, 1958	3.4	184
	1959	Mar. 17, 1959	1.19	45
	1960	Mar. 19, 1960	1.31	49
	1961	were dent	State Street	(c)
	1962	June 16, 1962	6.59	a 900
	1963	June 15, 1963	1.07	140
	1964	Apr. 22, 1964	.05	15
	1965	Aug. 21, 1965	2.61	362
	1966	Sept. 26, 1966	.11	a 1 5
	1967	June 12, 1967	2.81	390
	1968	June 9, 1968	.72	130

a About.

c No evidence of flow during year.

Location. -- Lat 45°11', long 106°55', in center sec.35, T.7 S., R.39 E., at culvert on county road, 10 miles south of Kirby. Drainage area. -- 6.04 sq mi.

Records available .-- April 1959 to

Gage.--Crest-stage gage installed Apr. 15, 1959. Altitude of gage
is 3,950 ft (from topographic map).

Annual maximum	data		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1958	e June 7, 1958	6.77	222
1959			Unknown
1960	Mar. 19, 1960	5.03	168
1961			(c)
1962	June 16, 1962	6.37	216
1963	June 15, 1963	6.77	222
1964	Apr. 6, 1964	1.17	30
1965	Apr. 1, 1965	1.62	45
1966	July 12, 1966	3.42	123
1967	June 7, 1967	•55	13
1968	M arch '1968		4. 5

155. Spring Creek near Ashland, Mont. (6-3076.4)

Location.--Lat 45°33', long 106°17', in NW1 sec.27, T.3 S., R.44 E., at culvert on county road along east side of Tongue River, 3.3 road miles south of U. S. Highway 212, 3 miles south of Ashland. Drainage area.--1.48 sq mi.

Records available. -- June 1962 to

Gage.--Crest-stage gage installed Apr. 24, 1963. Altitude of gage is 2,980 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	e June 16, 1962	4.12	110
1963	July 5, 1963	6 .9 0	148
1964	June 18, 1964	b 1.60	a 30
1965	July 12, 1965	6.8	215
1966	June 22, 1966	2.98	80
1967	June 12, 1967	3.34	94
1968	June 9, 1968	2.58	64

a About.

b Backwater from ice or debris.

c No evidence of flow during year.

e Prior to installation of gage.

156. Walking Horse Creek near Ashland, Mont. (6-3076.6)

Location. -- Lat 45°36', long 106°17', in NW sec.3, T.3 S., R.44 E., at culvert on county road along west side of Tongue River, 1.3 road miles north of U. S. Highway 212, and 1½ miles northwest of Ashland.

Drainage area. -- 2.79 sq mi.

Records available .-- April 1963 to

Gage.--Crest-stage gage installed Apr. 24, 1963. Altitude of gage is 2,950 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1963	Gred Gred	Gree Gree	(c)
1964	0m 0m	****	(c)
1965	July 1, 1965	0.50	Not determined
1966		ton ton	(c)
1967	June 12, 1967	.28	Not determined
1968	February 1968	1.75	Not determined

157. Stebbins Creek near Ashland, Mont. (6-3077.6)

Location. -- Lat 45°37', long 106°25', in center of sec. 34, T.2 S., R.43 E., at culvert on U. S. Highway 212, 7.5 road miles west of Ashland.

Drainage area. -- 5.41 sq mi.

Records available .-- April 1963 to

Gage.--Crest-stage gage installed Apr. 23, 1963. Altitude of gage is 3,400 ft (from topographic map).

AILIUAL MAALMUM U	<u> </u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1963	Apr. 4, 1963	0.1	< 0.5
1964	Apr. 6, 1964	.20	1 .
1965	Aug. 23, 1965	1.59	Not determined
1966	Mar. 11, 1966	b 1.85	a 2
1967	May 1967		< 1
1968	Aug. 23, 1968	2.18	Not determined

a About.

b Backwater from ice.

c No evidence of flow during year.

158. Stebbins Creek at mouth, near Ashland, Mont. (6-3077.8)

Location. -- Lat 45°38', long 106°18', in NW sec. 27, T.2 S., R.44 E., at bridge on county road along west side of Tongue River, 3.6 road miles north of U. S. Highway 212, 3½ miles northwest of Ashland.

Drainage area. -- 20.8 sq mi.

Records available .-- April 1963 to

Gage. -- Crest-stage gage installed Apr. 24, 1963. Altitude of gage is 2,950 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1963	June 15, 1963	2.44	Not determined
1964	June 18, 1964	3.40	Not determined
1965	Aug. 23, 1965	3.56	Not determined
1966	Mar. 12, 1966	b 1.85	a 15
1967	July 7, 1967	2.44	Not determined
1968	Aug. 23, 1968	2.80	110

159. Basin Creek tributary near Volborg, Mont. (6-3082)

Location. -- Lat 45°53', long 105°40', in NW sec. 31, T.2 N., R.49 E., at culvert on county road, 3½ miles north of Volborg.

<u>Drainage area.--0.14</u> sq mi. <u>Records available.--July 1955</u> to

Gage.--Crest-stage gage installed July 23, 1955. Altitude of gage is 2,900 ft (from topographic map).

Annual maximum data.--Gage height (ft) Discharge (cfs) Water year Date July 29, 1955 1955 0.24 20 1956 (c) 1957 (c) July 2, 1958 1958 6.96 390 1959 March 1959 a 2 ___ 1960 Mar. 21, 1960 .97 12 1961 (c) ___ 2.76 June 17, 1962 1962 36 June 22, 1963 June 18, 1964 Apr. 1, 1965 July 29, 1966 1963 9.38 94 14 1.07 1964 1.41 18 1965 3.11 41 1966 1967 June 14, 1967 June 20, 1968 1.93 1968

a About.

b Backwater from ice.

c No evidence of flow during year.

Location. -- Lat 45°53', long 105°39', in NW sec. 32, T.2 N., R.49 E., at bridge on U. S. Highway 212, 4 miles north of Volborg.

rainage area. -- 10.9 sq mi.

Records available .-- July 1955 to

Gage.--Crest-stage gage installed July 23, 1955. Altitude of gage is 2,850 ft (from topographic map).

Annual maximum	data		_
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1955	July 29, 1955	1.1	20
1956	Aug. 27, 1956	5.76	953
1957	Apr. 24, 1957	3.45	300
1958	July 2, 1958	5.79	965
1959	Mar. 11, 1959	1.87	75
1960	Mar. 21, 1960	5.26	770
1961	Sept. 10, 1961	1.04	18
1962	Feb. 11, 1962	3.18	250
1963	June 22, 1963	5.69	920
1964	June 18, 1964	2.48	145
1965	Apr. 1, 1965	3.93	400
1966	July 29, 1966	2.32	125
1967	June 14, 1967	1 6.06	a 200
1968	June 20, 1968	2.28	120
,	, ,		

161. North Fork Sunday Creek tributary at Rock Springs, Mont. (6-3090.2)

Location. -- Lat 46°49', long 106°15', in SE4 sec.1, T.12 N., R.43 E., at culverts on State Highway 22, 0.4 mile northwest of Rock Springs.

Drainage area. -- 1.19 sq mi.

Records available .-- May 1963 to

Gage.--Crest-stage gage installed May 17, 1963. Altitude of gage is 2,970 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1963			(c)
1964	June 18, 1964	0.38	3
1965	July 11, 1965	1.76	23
1966	Mar. 13, 1966	2.74	38
1967	Mar. 23, 1967	b 1.76	a 5
1968	March 1968	p.° ₇ +J	a 3

a About.

b Backwater from ice.

c No evidence of flow during year.

j Backwater from Pumpkin Creek.

Location. -- Lat 46°41', long 106°10', in NE sec. 27, T.11 N., R.44 E., near bridge on State Highway 22, 3.2 miles south of Angela.

<u>Drainage area.--35.6</u> sq mi. <u>Records available.--May 1963</u> to

Gage. -- Crest-stage gage installed May 17, 1963. Altitude of gage is 2,760 ft (from topographic map).

Annual maximum	data		
<u>Water year</u>	Date	Gage height (ft)	Discharge (cfs)
1963	June 4, 1963	3.60	380
1964	June 18, 1964	3.18	280
1965	Apr. 1, 1965	4.13	500
1966	Mar. 19, 1966	b 2.08	a 10
1967	June 13, 1967	6.65	1,500 (revised)
1968	March 1968	b 2.19	a 15

163. North Fork Sunday Creek tributary No. 2 near Angela, Mont. (6-3090.6)

Location. -- Lat 46°34', long 106°04', in NE¹/₄ sec.4, T.9 N., R.45 E., at culvert on State Highway 22, 14.1 road miles northwest of Yellowstone River bridge at Miles City, 15 miles northwest of Miles City, and 13 miles southeast of Angela.

<u>Drainage area</u>.--0.34 sq mi. <u>Records available</u>.--June 1962 to

Gage.--Crest-stage gage installed May 17, 1963. Altitude of gage is 2,680 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	e June 1, 1962	2.42	45
1963	June 3, 1963	5.20	158
1964	June 18, 1964	1.47	19
1965	July 11, 1965	4.89	144
1966	Mar. 19, 1966	4.56	130
1967	June 13, 1967	2.77	56
1968	June 9,1968	1.76	26

a About.

b Backwater from ice.

e Prior to installation of gage.

164. Deep Creek near Kinsey, Mont. (6-3090.8)

Location. -- Lat 46°33', long 105°38', in SW\(\frac{1}{4}\) sec.12, T.9 N., R.48 E., at culvert on Interstate Highway 94 and U. S. Highway 10, 3.1 miles southwest of Shirley railroad station, 2 miles southeast of Kinsey, and 13 miles northeast of Miles City.

<u>Drainage area.--11.1</u> sq mi. <u>Records available.--</u>July 1962 to

Gage. -- Crest-stage gage installed May 16, 1963. Altitude of gage is 2,320 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	e July 14, 1962	7.80	828
1963	June 5, 1963	16.77	2,420
1964	Aug. 29, 1964	13.83	1,830
1965	July 11, 1965	10.79	1,300
1966	June 3, 1966	3.61	260
1967	June 12, 1967	3.93	300
1968	June 9, 1968	6.90	700

165. Meadow Creek near Locate, Mont. (6-3090.9)

Location. -- Lat 46°22', long 105°30', in center of $N\frac{1}{2}$ sec.17, T.7 N., R.50 E., at wooden culvert on State Secondary 333 between U. S. Highway 12 and Mizpah, 3.2 road miles southeast of U. S. Highway 12, and 10 miles southwest of Locate.

Drainage area. -- 6.67 sq mi.

Records available .-- July 1962 to

Gage.--Crest-stage gage installed Apr. 24, 1963. Altitude of gage is 3,040 ft (from topographic map).

Annual maximum data.--

HILLIUAL MAXIMUM	_uata. ==		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	e July 14, 1962	8.6	1,400
1963	June 21, 1963	.31	Not determined
1964	Aug. 29, 1964	1.60	Not determined
1965	Apr. 1, 1965	2.96	Not determined
1966	Mar. 14, 1966	.80	Not determined
1967	June 12, 1967	1.77	Not determined
1968	May 13, 1968	3.63	Not determined

e Prior to installation of gage.

Location. -- Lat 45°26', long 105°26', in SEt sec. 5, T. 5 S., R. 51 E., at culverts on Moorhead road, 1.8 miles southwest of Broadus.

Drainage area. -- 10.6 sq mi.

Records available. -- July 1955 to Gage. -- Crest-stage gage installed July 22, 1955. Altitude of gage

is 3,090 ft (from topographic map).

Ar	inual maximum	data		
	Water year	Date	Gage height (ft)	Discharge (cfs)
	1955	torio torio	tind one	(c)
	1956	Mar. 16, 1956	1.75	19
	1957	Aug. 28, 1957	1.55	15
	1958	June 7, 1958	3.95	93
	1959	Mar. 18, 1959	4.79	252
	1960	Mar. 20, 1960	b 4.78	a 150
	1961	000 000		(c)
	1962	June 11, 1962	2.85	50
	1963	Feb. 5, 1963	2.00	23
	1964	June 8, 1964	1.58	13
	1965	Apr. 1, 1965	2.96	13 53
	1966	July 29, 1966	1.27	7
	1967	June 14, 1967	1.50	12
	1968	Feb. 29, 1968	b 1.96	a 5
	•		· ·	•

167. Meyers Creek near Locate, Mont. (6-3264)

Location.--Lat 46°23', long 105°17', in SE½ sec.1, T.7 N., R.51 E., at culvert on county road on east side of Powder River, 3.4 road miles south of U. S. Highway 12, and 3 miles southeast of Locate. Drainage area.--9.58 sq mi.

Records available .-- July 1962 to

Gage.--Crest-stage gage installed Apr. 25, 1963. Altitude of gage is 2,520 ft (from topographic map).

Annual maximum data.--Water year Discharge (cfs) Date Gage height (ft) e July 14, 1962 June 6, 1963 Aug. 29, 1964 Apr. 1, 1965 1962 7.79 500 1963 8.24 1,370 1964 6.62 200 5.00 1.70 1965 150 Mar. 14, 1966 May 11, 1967 55 1966 190 1967 6.13 June 24, 1968 230 7.10 1968

a About.

b Backwater from ice.

c No evidence of flow during year.

e Prior to installation of gage.

168. O'Fallon Creek near Ismay, Mont. (6-3266)

Location. -- Lat 46°25', long 104°46', near center of east edge of sec.30, T.8 N., R.56 E., at bridge on U. S. Highway 12, 11½ miles west of Plevna, 1 mile east of road to Ismay, and 6½ miles southeast of Ismay.

Drainage area. -- 669 sq mi.

Records available .-- July 1962 to

Gage.--Crest-stage gage installed Apr. 26, 1963. Altitude of gage
is 2,590 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	<u>Discharge (cfs)</u>
1962	e July 14, 1962	7.23	2,480
1963	June 7, 1963	4.12	950
1964	June 18, 1964	4.20	980
1965	July 12, 1965	7.27	2,500
1966	July 26, 1966	5.07	1,370
1967	June 6, 1967	5.62	1,640
1968	Aug. 23, 1968	1.71	240

169. O'Fallon Creek tributary near Ismay, Mont. (6-3266.5)

Location. -- Lat 46°25', long 104°44', in SE4 sec.29, T.8 N., R.56 E., at culvert on U. S. Highway 12, 2 miles east of road to Ismay, 1 mile east of 0'Fallon Creek bridge, and 7 miles southeast of Ismay.

Drainage area. -- 0.17 sq mi.

Records available .-- July 1962 to

Gage.--Crest-stage gage installed Apr. 25, 1963. Altitude of gage is 2,750 ft (from topographic map).

AIIIIUAL MAXIMUM	<u>uata</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	e July 14, 1962	3.64	49
1963	June 7, 1963	5.26	59
1964	June 18, 1964	5.27	59
1965	July 12, 1965	3.36	47
1966	July 26, 1966	4.33	54
1967	June 23, 1967	5.55	61
1968	Aug. 23, 1968	1.20	24
	- '		

170. Deep Creek near Baker, Mont. (6-3267)

Location. -- Lat 46°18', long 104°18', in SW sec.2, T.6 N., R.59 E., at culverts on State Highway 7, 5.0 road miles south of U. S. Highway 12 in Baker, and 5 miles south of Baker.

Drainage area. -- 1.55 sq mi.

Records available .-- July 1962 to

Gage. -- Crest-stage gage installed Apr. 25, 1963. Altitude of gage is 3,080 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	e July 7, 1962	2.64	86
1963	July 11, 1963	2.55	80
1964	June 8, 1964	3.90	190
1965	July 12, 1965	3.29	136
1966	July 13, 1966	3.87	185
1967	May 8, 1967	2.09	5 [[] +
1968	June 9, 1968	2.86	100
	•		

171. Pennel Creek near Baker, Mont. (6-3268)

Location. -- Lat 46°29', long 104°14', in center of south edge of sec.36, T.9 N., R.59 E., at culvert on State Highway 7, 7.8 miles north of U. S. Highway 12 in Baker, and 8 miles north of Baker.

Drainage area. -- 1.00 sq mi.

Records available .-- July 1962 to

Gage.--Crest-stage gage installed Apr. 25, 1963. Altitude of gage
is 3,090 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	e July 7, 1962	6.0	240
1963	June 5, 1963	8.51	350
1964	June 18, 1964	1.94	85
1965	Apr. 9, 1965	1.98	88
1966	June 4, 1966	2,28	97
1967	June 14, 1967	1.94	40
1968	Aug. 23, 1968	1.45	30

172. Yellowstone River tributary No. 4 near Fallon, Mont. (6-3269)

Location. -- Lat 46°52', long 105°06', in SW sec.23, T.13 N., R.52 E., at culvert on Interstate Highway 94 and U. S. Highway 10, 0.5 mile northeast of the north end of the Yellowstone River bridge near Fallon, and 2 miles north of Fallon.

<u>Drainage area.--0.67</u> sq mi. <u>Records available</u>.--July 1962 to

Gage. -- Crest-stage gage installed May 17, 1963. Altitude of gage is 2,250 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	e July 14, 1962	9.58	338
1963	June 6, 1963	.67	a 40
1964	June 8, 1964	1.05	55
1965	July 12, 1965	1.36	60
1966	Desir Desir	-	(c)
1967	May 13, 1967	2.20	105
1968	June 15, 1968	6.94	260

173. Yellowstone River tributary No. 5 near Marsh, Mont. (6-3269.5)

Location. -- Lat 46°57', long 104°54', in SW4 sec.21, T.14 N., R.54 E., at culvert on Interstate Highway 94 and U. S. Highway 10, 2.4 miles northeast of Cracker Box Creek, 2.5 miles southwest of Clear Creek, and 5 miles northeast of Marsh.

Drainage area. -- 0.87 sq mi.

Records available . -- July 1962 to

Gage. -- Crest-stage gage installed May 17, 1963. Altitude of gage is 2,300 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	e July 14, 1962	2.97	127
1963	June 6, 1963	1.40	12
1964	June 8, 1964	.70	2
1965	Apr. 1, 1965	b 2.81	a 10
1966	June 4, 1966	1.68	a 20
1967	May 13, 1967	.66	2
1968		made (peak	· (c)

a About.

b Backwater from ice.

c No evidence of flow during year.

e Prior to installation of gage.

174. Krug Creek tributary near Wibaux, Mont. (6-3277)

Location .-- Lat 47°01', long 104°19', in NW 1NW sec. 36, T.15 N., R.58 E., at culvert on Interstate Highway 94 and U. S. Highway 10, 8 miles northwest of Wibaux.

Drainage area. -- 1.74 sq mi. Records available. -- June 1955 to September 1961 (discontinued). Gage. -- Crest-stage gage installed June 30, 1955. Altitude of gage

is 2,720 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1955			(c)
1956	March 1956	0.23	1
1957	Mar. 20, 1957	1.61	18
1958	July 3, 1958	2.70	49
1959	Mar. 18, 1959	.60	Š
1960	June 12, 1960	3.00	70
1961			(c)

175. Griffith Creek near Glendive, Mont. (6-3278)

Location. -- Lat 47°06', long 104°34', in NE½ sec.36, T.16 N., R.56 E., near bridge on Interstate Highway 94 and U. S. Highway 10, 8 miles east of Glendive.

Drainage area. -- 15.5 sq mi.

Records available. -- June 1955 to September 1963, June 1965 to September 1967 (discontinued).

Gage.--Crest-stage gage installed June 30, 1955. Altitude of gage is
2,220 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1955	July 28, 1955	1.80	a 100
1956	Mar. 19, 1956	.86	a 80
1957	Mar. 20, 1957	•27	50
1958	July 3, 1958	•55	101
1959	Mar. 17, 1959	•74	157
1960	Mar. 20, 1960	1.41	Not determined
1961	June 29, 1961	3.96	Not determined
1962	June 6, 1962	.82	21
1963	June 22, 1963	1.70	Not determined
1965	June 16, 1965		14,600
1966	Mar. 11, 1966		a 150
1967	June 14, 1967	1.68	a 30

a About.

c No evidence of flow during year.

176. Linden Creek at Intake, Mont. (6-3287)

Location. -- Lat 47°18', long 104°31', in NE¹/₄ sec.25, T.18 N., R.56 E., at bridge on State Highway 16, three-quarters of a mile northeast of Intake.

Drainage area. -- 5.01 sq mi.

Records available .-- March 1958 to

Gage. -- Crest-stage gage installed Mar. 11, 1958. Altitude of gage is 2,080 ft (from topographic map).

Cooperation .-- Montana Water Conservation Board .

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1958	July 3, 1958	0.98	6
1959	Sept. 21, 1959	1.54	12
1960	June 21, 1960	1.35	.10
1961		man mon	(c)
1962	June 15, 1962	1.46	10
1963	June 15, 1962 Feb. 5, 1963	2.38	a 30
1964			(c)
1965	June 16, 1965	1.63	1,1
1966	July 2, 1966	1.11	7+
1967	June 14, 1967	1.36	.7
1968	Feb. 27, 1968	1.04	4

177. Indian Creek at Intake, Mont. (6-3288)

Location. -- Lat 47°17', long 104°32', in SW4 sec.25, T.18 N., R.56 E., at culvert on State Highway 16, 500 ft northeast of Intake.

<u>Drainage area.</u>--0.45 sq mi. <u>Records available.</u>--March 1958 to

Gage. -- Crest-stage gage installed Mar. 11, 1958. Altitude of gage is 2,090 ft (from topographic map).

Cooperation .-- Montana State Water Conservation Board.

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1958	July 3, 1958	3.23	Not determined
1959	Sept. 21, 1959	3.28	Not determined
1960	Mar. 20, 1960	.60	(c)
1961	Mar. 13, 1961	1.04	(c)
1962	Aug. 10, 1962	2.93	Not determined
1963	Feb. 5, 1963	1.83	3
1964	June 8, 1964	2.08	6
1965	June 16, 1965	3.18	Not determined
1966	July 2, 1966	2.40	13
1967	February 1967	2.14	7
1968	July 16, 1968	2.68	a 25

a About.

c No evidence of flow during year.

178. War Dance Creek near Intake, Mont. (6-3289)

Location. -- Lat 47°20', long 104°29', in SW sec. 8, T.18 N., R.57 E., at culvert on State Highway 16, 3½ miles northeast of Intake.

Drainage area. -- 4.31 sq mi.

Records available. -- March 1958 to Gage. -- Crest-stage gage installed Mar. 11, 1958. Altitude of gage is 2,080 ft (from topographic map).

<u>Cooperation</u>.--Montana State Water Conservation Board.

Alliual maximum	data		
<u>Water year</u>	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1958			(c)
1959	Mar. 17, 1959 Mar. 20, 1960	1.96 1.83	Not determined
1960	Mar. 20, 1960	1.83	Not determined
1961			(c)
1962	June 6, 1962	• 94	Not determined
1963	Feb. 5, 1963	22	0.4
1964			(c)
1965	June 16, 1965	.81	Not determined
1966			(c)
1967	March 1967	1.36	Not determined
1968			(c)

179. First Hay Creek near Sidney, Mont. (6-3295.7)

Location .-- Lat 47°50', long 104°16', in SE sec. 16, T. 24 N., R. 58 E., at bridge on State Highway 16, 4.1 road miles north of "Dryland Crop and Soils Research Station" sign, and 10 miles northwest of Sidney.

Drainage area. -- 30.0 sq mi.

Records available. -- May 1963 to

Gage. -- Crest-stage gage installed May 20, 1963. Altitude of gage is 2,170 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1963	Aug. 23, 1963	1.02	20
1964	July 5, 1964	•90	15
1965	Apr. 8, 1965		a 100
1966	March 1966	2.15	120
1967	March 1967	2.10	115
1968	Feb. 29, 1968	.70	10

a About.

c No evidence of flow during year.

180. North Creek near Alzada, Mont. (6-3329)

Location. -- Lat 45°04', long 104°31', in SE4NW4 sec.7, T.9 S., R.59 E., 8 miles northwest of Alzada.

Drainage area. -- 0.68 sq mi.

Records available. -- May to September 1951 (continuous record), July 1955 to

Gage. -- Water-stage recorder re-installed July 21, 1955. Altitude of gage is 3,480 ft (by barometer).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1951	June 17, 1951	5.18	260
1955			(c)
1956	July 2, 1956	4.32	276
1957	Aug. 28, 1957	4.32	276
1958	June 3, 1958	4.66	417
1959	June 30, 1959	3.21	58
1960	Aug. 17, 1960	3.77	142
1961	Sept. 18, 1961	4.05	203
1962	May 21, 1962	5.47	a 1,100
1963	June 14, 1963	5.23	791
1964	June 22, 1964	3.22	34
1965	July 1, 1965	4.82	486
1966	July 28, 1966	2.92	15
1967	June 5, 1967	5.28 (correc	
1968	June 23, 1968	4.72	430
	- /	•	9 -

a About.

c No evidence of flow during year.

181. Wolf Creek near Hammond, Mont. (6-3341)

Location. -- Lat 45°10', long 104°45', in SE¹/₄ sec.5, T.8 S., R.57 E., at culvert on U. S. Highway 212, 8 miles southeast of Hammond.

Drainage area. -- 9.09 sq mi.
Records available. -- July 1955 to

Gage. -- Crest-stage gage installed July 22, 1955. Altitude of gage is 3,590 ft (from topographic map).

Annual maximum	data		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1955	e July 11, 1955	4.08	298
1956	Mar. 22, 1956	3.45	175
1957	Aug. 29, 1957	4.58	365
1958	June 3, 1958	5.76	550
1959	Mar. 19, 1959	3.32	154
1960	Mar. 21, 1960	5.26	485
1961	Sept. 18, 1961	2.31	30
1962	May 21, 1962	5.62	540
1963	Aug. 3, 1963	3.54	190
1964	June 22, 1964	3.85	240
1965	Aug. 22, 1965	12.38	1,170
1966	July 28, 1966	5.66	1555
1967	June 14, 1967	9.94	1,100
1968	Feb. 29, 1968	b 4.Ó2	a 260

a About.

b Backwater from ice.

e Prior to installation of gage.

182. Willow Creek near Alzada, Mont. (6-3342)

Location .- Lat 45°06', long 104°35', in center of sec. 27, T.8 S., R.58 E., near bridge on U. S. Highway 212, 11 miles northwest of Alzada.

Drainage area. -- 123 sq mi.

Records available .-- May 1958 to

Gage. -- Crest-stage gage installed May 8, 1958. Altitude of gage is 3,460 ft (from topographic map).

Cooperation .-- Montana State Water Conservation Board.

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1958	June 5, 1958	7.54	455
1959	Mar. 19, 1959	7.31	548
1960	Mar. 23, 1960	11.19	a 1,350
1961	Sept. 18, 1961	1.77	J+O
1962	May 21, 1962	11.98	a 1,700
1963	Aug. 3, 1963	7.28	1480
1964	June 22, 1964	4.84	200
1965	Aug. 22, 1965	8.39	550
1966	July 28, 1966	4.97	220
1967	June 14, 1967	12.57	1,800
1968	July 29, 1968	5.94	300

183. North Fork Coal Bank Creek near Mill Iron, Mont. (6-3346.4)

Location .-- Lat 45°56', long 104°05', in SW4 sec.12, T.2 N., R.61 E., at bridge on county road, 5 miles south of Soda Creek tributary crest-stage gage, Il miles southeast of Webster, and 9 miles northeast of Mill Iron.

Drainage area. -- 15.0 sq mi.

Records available. -- May 1962 to Gage. -- Crest-stage gage installed Apr. 26, 1963. Altitude of gage is 3,040 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	e May 22, 1962	4.72	Not determined
1963	July 10, 1963	2.65	Not determined
1964	June 9, 1964	1.70	210
1965	Aug. 23, 1965	1.27	150
1966	March 1966	b 1.90	a 100
1967	May 7, 1967	1.60	195
1968	Feb. 29, 1968	tion too	a 10

a About.

b Backwater from ice.

e Prior to installation of gage.

Location. -- Lat 46°01', long 104°06', in NE¹/₄ sec.23, T.3 N., R.61 E., at culvert on county road, 0.3 miles south of Soda Creek, and 8 miles southeast of Webster.

Drainage area. -- 2.22 sq mi.

Records available. -- May 1962 to

Gage. -- Crest-stage gage installed Apr. 26, 1963. Altitude of gage is 3,100 ft (from topographic map).

Annual maximum	<u>aata</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1962	e May 22, 1962	5.19	106
1963	July 10, 1963	1.57	12
1964	Aug. 29, 1964	2.55	28
1965	July 5, 1965	1.05	7
1966	Mar. 14, 1966	1.00	_ 9
1967	June 14, 1967	1.7	12
1968	July 17, 1968	•79	5 _.

185. Spring Creek near Wibaux, Mont. (6-3364.5)

Location. -- Lat 46°53', long 104°12', in sec.14, T.13 N., R.59 E., near bridge on State Highway 7, 7 miles south of Wibaux.

<u>Drainage area.--3.88 sq mi.</u>

Records available. -- June 1955 to

Gage.--Crest-stage gage installed June 29, 1955. Altitude of gage
is 2,770 ft (from topographic map).

Annual maximum	data		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1956	March 1956	0.67	61
1957	Sept. 5, 1957	1.36	127
1958	March 1958	• 54	52
1959	Mar. 21, 1959	1.18	108
1960	Mar. 20, 1960	.84	76
1961			(c)
1962	July 19, 1962	3.34	438
1963	Feb. 5, 1963	.57	53
1964	July 5, 1964	•95	85
1965	Apr. 1, 1965	b 1.91	a 100
1966	Mar. 11, 1966	1.32	125
1967	March 1967	b 1.57	a 10
1968	Feb. 27, 1968	b 1.46	a 10
1/00	1000 - 19 - 100	D 20 1 0	

a About.

b Backwater from ice.

c No evidence of flow during year.

e Prior to installation of gage.

COLUMBIA RIVER BASIN

186. Fortine Creek near Trego, Mont. (12-3005)

Location. -- Lat $48^{\circ}39^{\circ}$, long $114^{\circ}55^{\circ}$, in $NE_{\frac{1}{4}}$ sec. 11, T.33 N., R.26 W., $5\frac{1}{2}$ miles southwest of Trego.

Drainage area. -- 112 sq mi.

Records available. -- December 1946 to September 1953 (continuous record), 1954, May 1958 to

Gage. -- Crest-stage gage installed July 1, 1959. Wire-weight gage December 1946 to September 1953. Altitude of gage is 3,340 ft (from topographic map).

Annual maximum data. --

AIIIIual maximum u	<u>aua • == </u>		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1947	Apr. 29, 1947	10.24	948
1948	May 22, 1948	10.46	1,000
1949	May 11, 1949	9.34	d 754
1950	May 16, 1950	11.8	1,810
1951	May 7, 1951	9.95	875
1952	Apr. 28, 1952	9.65	798
1953	May 7, 1953	9.90	860
1954	May 20, 1954	11.8	1,810
1958	May 24, 1958	10.2	a´850
1959	too too	toro meno	Unknown
1960	Apr. 8, 1960	9.7	700
1961	May 11, 1961	a 10.0	a 700
1962	Apr. 19, 1962	8.96	540
1963	Apr. 19, 1902		
- 1 1	Apr. 26, 1963	6.01	360
1964	May 18, 1964	9.48	600
1965	Apr. 27, 1965	11.13	1,060
1966	May 4, 1966	8.51	500
1967	May 23, 1967	11.34	1,160
1968	May 23, 1968	7.23	377
, , ,		()	3//

a About.

d Maximum observed.

Location. -- Lat 48°46', long 114°53', in SW4 sec.30, T.35 N., R.25 W., at culvert on county road, 14 miles east of Fortine.

Drainage area.--17.9 sq mi.

Records available . -- July 1959 to

Gage .-- Crest-stage gage installed July 1, 1959. Altitude of gage

is 3,000 ft (from topographic map).

Annual maximum	<u>aata</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	(k)	2.8	150
1960	June 6, 1960	2.67	138
1961	May 31, 1961	2.92	1 61
1962	May 28, 1962	1.75	82
1963	June 22, 1963	2.26	108
1964	June 8, 1964	4.90	310
1965	May 28, 1965	3.28	180
1966	May 4, 1966	4.20	208
1967	May 24, 1967	3.06	140
1968	May 24, 1968	2.12	92

188. Kootenai River tributary near Rexford, Mont. (12-3017)

Location. -- Lat 48°48', long 115°18', in SE½ sec.11, T.35 N., R.29 W., at culvert on State Highway 37, 7 miles southwest of Rexford.

Drainage area. -- 1.11 sq mi.

Records available . -- July 1959 to

Gage. -- Crest-stage gage installed July 1, 1959. Altitude of gage is 2,280 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	(k)	0.5	2
1960	Apr. 8, 1960	1.25	9
1961	May 12, 1961	1.28	9
1962	May 21, 1962	1.16	8
1963	May 14, 1963	• 5 5	3
1964	May 21, 1964	1.00	7
1965	May 27, 1965	1.10	8
1966	May 4, 1966	•88	6
1967	May 22, 1967	1.48	12
1968	May 22, 1968	• 50	2

k Peak flow occurred sometime during period May-June.

189. Gold Creek near Rexford, Mont. (12-3018)

Location. -- Lat 48°47', long 115°19', in NW sec.23, T.35 N., R.29 W., at culvert on State Highway 37, 8 miles southwest of Rexford.

Drainage area. -- 6.04 sq mi.

Records available. -- July 1959 to Gage. -- Crest-stage gage installed July 1, 1959. Altitude of gage

is 2,260 ft (from topographic map).

Annual maximum	uata		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	(k)	1.5	103
1960	Apr. 8, 1960	.85	55
1961	May 21, 1961	• 97	64
1962	May 12, 1962	•78	50
1963	May 14, 1963	•27	22
1964	May 20, 1964	• 93	61
1965	Apr. 27, 1965	• 95	62
1966	May 4, 1966	•91	60
1967	May 22, 1967	1.85	134
1968	May 22, 1968	•51	3 4

190. Little Jackson Creek near Libby, Mont. (12-3019)

Location. -- Lat 48°27', long 115°19', in center sec.16, T.31 N., R.29 W., at culvert on State Highway 37, 12 miles northeast of Libby.

Drainage area. -- 2.60 sq mi.
Records available. -- May 1961 to

Gage. -- Crest-stage gage installed May 16, 1961. Altitude of gage

is 2,180 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1961	e May 15, 1961	0.4	13
1962		(f)	< 4
1963	February 1963	b .22	a 5
1964	open grad	(f)	$<$ ι_{l} .
1965	April 1965	.36	12
1966		(f)	< 1+
1967	June 28, 1967	02	չլ.
1968	May 7, 1968	38	<.1

a About.

b Backwater from ice.

e Prior to installation of gage.

f Peak did not reach bottom of gage.

k Peak flow occurred sometime during period May-June.

191. Peoples Creek near Libby, Mont. (12-3020.5)

Location .-- Lat 45°20', long 115°19', in NW sec. 28, T.30 N., R.29 W., at culvert on private road 12 miles east of Libby.

Drainage area. -- 2.65 sq mi.

Records available. -- May 1961 to September 1967 (discontinued).

Gage. -- Crest-stage gage installed May 16, 1961. Altitude of gage

is 2,200 ft (from topographic map).

Annual maximum	<u>uata</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1961	e May 15, 1961	0.3	10
1962	May 18, 1962	.05	4
1963	one rue	(f) ₍	<0.5
1964	Apr. 21, 1964	04	1
1965	Apr. 27, 1965	46	15
1966	May 12, 1966	•34	a 2
1967	May 22, 1967	•34	1

192. Severn Gulch near Jennings, Mont. (12-3021)

Location. -- Lat 48°22', long 115°24', in SE4 sec.14, T.30 N., R.30 W., at culvert on private road, 3 miles west of Jennings.

Drainage area. -- 1.16 sq mi.

Records available .-- July 1959 to May 1961 (discontinued).

Gage .-- Crest-stage gage installed July 2, 1959.

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	April 1960	0.03	a 1
1961			Unknown

a About.

e Prior to installation of gage.

f Peak discharge did not reach bottom of gage.

193. Tub Gulch near Libby, Mont. (12-3022)

Location. -- Lat 48°25', long 115°28', in NE½SE½ sec.29, T.31 N., R.30 W., at culvert on State Highway 37, 4 miles northeast of Libby.

Drainage area. -- 1.47 sq mi.

Records available .-- July 1959 to May 1961 (discontinued) .

Gage. -- Crest-stage gage installed July 2, 1959.

Annual maximum data.-
Water year

1960

June 3, 1960

1961

Discharge (cfs)

Unknown

Unknown

194. Shaughnessy Creek near Libby, Mont. (12-3024)

Location. -- Lat 48°18', long 115°36', in W½ sec.5, T.29 N., R.31 W., at culvert on county road, 6½ miles southwest of Libby.

Drainage area. -- 1.11 sq mi.

Records available .-- July 1959 to

Gage. -- Crest-stage gage installed July 2, 1959. Altitude of gage is 2,820 ft (from topographic map).

Annual maximum data .--

Water year	Date	Gage height (ft)	Discharge (cfs)
1959	(k)	0.4	16
1960	greet more	(f)	<4
1961	Mar. 30, 1961	•73	33
1962	May 16, 1962	.67	29
1963	Apr. 4, 1963	•09	6
1964	April 1964	•39	a 16
1965	April 1965	• 97	48
1966	May 4, 1966	•35	14
1967	May 22, 1967	• 03	6
1900	May 22, 1968	• 20	72

a About.

f Peak discharge did not reach bottom of gage.

k Peak flow occurred sometime during period May-June.

Location. -- Lat 48°50', long 115°49', in NE¹/₄ sec.1, T.35 N., R.33 W., 500 ft upstream from mouth, 5 miles west of Yaak.

Drainage area. -- 2.61 sq mi.

Records available .-- July 1960 to

Gage. -- Crest-stage gage installed July 15, 1960. Altitude of gage is 2,930 ft (from topographic map).

Annual maximum data .--Gage height (ft) Water year Date Discharge (cfs) 33 49 1960 (1c)0.7 1961 May 1, 1961 1.02 11 1962 May 21, 1962 .45 Apr. 4, 1963 May 22, 1964 .58 1963 31 42 1964 .70 .96 .79 .88 1965 Apr. 26, 1965 May 4, 1966 1966 May 22, 1967 1967 1968 May 22, 1968

196. Cyclone Creek near Yaak, Mont. (12-3043)

Location. -- Lat 48°45', long 115°54', in SE½ sec.32, T.35 N., R.33 W., at bridge a quarter of a mile upstream from mouth, 10½ miles southwest of Yaak.

Drainage area. -- 5.66 sq mi.

Records available .-- July 1960 to

Gage. -- Crest-stage gage installed July 15, 1960. Altitude of gage is 2,790 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	(k)	2.06	220
1961	May 26, 1961	1.78	172
1962	May 21, 1962	1.26	97
1963	Apr. 4, 1963	1.58	133
1964	May 22, 1964	1.94	150
1965	Apr. 27, 1965	1.38	73
1966	May 4, 1966	1.56	130
1967	May 22, 1967	1.75	168 (revised)
1968	May 22, 1968	1.42	118

197. Fourth of July Creek near Yaak, Mont. (12-3044)

Location .- Lat 48°42', long 115°52', in NW1 sec. 22, T.34 N., R.33 W., at bridge 500 ft upstream from mouth, 12 miles southwest of Yaak. Drainage area. -- 7.70 sq mi.

Records available .-- July 1960 to

Gage. -- Crest-stage gage installed July 14, 1960. Altitude of gage is 2,650 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	(k)	2.5	258
1961	May 26, 1961	2.06	196
1962	Apr. 19, 1962	1.60	138
1963	Apr. 14, 1963	•95	61
1964	May 22, 1964	2.20	190
1965	Apr. 26, 1965	1.98	165
1966	May 4, 1966	2.00	188
1967	May 22, 1967	2.19	215
1968	May 22, 1968	1.79	160

198. Smith Gulch near Silverbow, Mont. (12-3233)

Location .- Lat 45°57', long 112°40', in N2 sec. 1, T.2 N., R.9 W., at culvert on Interstate Highway 15 and U. S. Highway 91, 4 miles south of Silverbow.

Drainage area. -- 4.85 sq mi.

Records available. -- May 1959 to Gage. -- Crest-stage gage installed May 11, 1959. Altitude of gage is 5,510 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959			a 5
1960	Mar. 21, 1960	1.97	43
1961	Sept. 11, 1961	2.41	67
1962	Apr. 14, 1962	1.70	32
1963	Feb. 4, 1963	4.91	80
1964	Mar. 30, 1964	3.04	10
1965	Dec. 23, 1964	5.75	123
1966	Mar. 30, 1966	3.04	9
1967	May 8, 1967	3.28	19
1968	Feb. 21, 1968	2.77	Ź

a About.

k Peak flow occurred sometime during period May-June.

199. Clark Fork tributary near Drummond, Mont. (12-3247)

Location. --Lat $46^{\circ}37'$, long $113^{\circ}02'$, in $SW_{\frac{1}{4}}$ sec.18, T.10 N., R.11 W., half a mile upstream from Interstate Highway 90 and U. S. Highway 10, $6\frac{1}{2}$ miles east of Drummond.

Drainage area. -- 4.61 sq mi.

Records available .-- June 1959 to

Gage.--Crest-stage gage installed June 17, 1959. Altitude of gage is 4,080 ft (from topographic map).

Annual maximum d	lata	-		
Water year		Date	Gage height (ft)	Discharge (cfs)
1958	e June	9, 1958	1.64	133
1959		***		(c)
1960	Mar.	18, 1960	1.62	84
1961	Apr.	3, 1961	•70	20
1962	Apr.	4, 1962	.62	18
1963	Feb.	4, 1963	1.44	56
1964	Mar.	31, 1964	•98	21
1965	Feb.	5, 1965	1.53	64
1966	Mar.	9, 1966	2.00	125
1967	Mar.	18, 1967	• 55	15
1968	Feb.	20, 1968	1.45	66

200. Morris Creek near Drummond, Mont. (12-3248)

Location. -- Lat 46°40', long 113°06', in NW4NW4 sec.34, T.11 N., R.12 W., at culvert on State Secondary Highway 271, 2 miles east of Drummond.

Drainage area. -- 12.6 sq mi.

Records available .-- June 1959 to

Gage.--Crest-stage gage installed June 17, 1959. Altitude of gage
is 4,170 ft (from topographic map).
Annual maximum data.--

MIIIIUAL MAXIMUM	ua va •		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	Mar. 26, 1960	1.23	14
1961	Apr. 3, 1961	• ¹ +7	3
1962	Apr. 23, 1962	•65	1+
1963	Mar. 21, 1963	•76	6
1964	May 20, 1964	1.06	10
1965	May 29, 1965	.83	12
1966	Mar. 29, 1966	.87	13
1967	Mar. 18, 1967	.82	12
1968	Feb.20, 1968	1.02	10

c No evidence of flow during year.

e Prior to installation of gage.

201. Edwards Gulch at Drummond, Mont. (12-3317)

Location. -- Lat 46°40', long 113°09', in SW4SW4 sec.29, T.11 N., R.12 W., at culvert on private road, 0.4 miles north of Interstate Highway 90 and U. S. Highway 10 at Drummond.

<u>Drainage area.--4.69</u> sq mi. <u>Records available.--June 1959</u> to September 1962 (discontinued). Gage .-- Crest-stage gage installed June 17, 1959. Altitude of gage is 4,000 ft (from topographic map).

Annual maximum data .--

amidal maximum	uava		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	Mar. 21, 1960	b 1.11+	Unknown
1961	Apr. 3, 1961	• 14	2
1962	Apr. 14, 1962	• 55	8

202. West Twin Creek near Bonner, Mont. (12-3399)

Location. -- Lat 46°55', long 113°43', in NW sec.2, T.13 N., R.17 W., at bridge on State Highway 20, 8 miles east of Bonner.

Drainage area. -- 7.47 sq mi. Records available .-- June 1959 to

Gage. -- Crest-stage gage installed June 17, 1959. Altitude of gage is 3,410 ft (from topographic map). Annual marimum data

AIIIIUAL MAXIMUM	<u>uata</u> •		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	June 1959	0.7	98
1960	Apr. 6, 1960	•63	82
1961	May 27, 1961	.91	128
1962	Apr. 19, 1962	•92	92
1963	May 29, 1963	.63	63
1964	June 8, 1964	b 1.10	a 150
1965	Apr. 14, 1965	1.33	a 120
1966	May 28, 1966	•45	1+2
1 967	May 22, 1967	1.48	200
1968	May 22, 1968	.91	80

a About.

b Backwater from ice.

203. Marshall Creek near Missoula, Mont. (12-3402)

Location.--Lat 46°53', long 113°55', in NW sec.18, T.13 N., R.18 W., at culvert on Interstate Highway 90 and U. S. Highways 10 and 12, 3 miles east of Missoula.

Drainage area. -- 5.47 sq mi.

Records available .-- June 1959 to

Gage. -- Crest-stage gage installed June 19, 1959. Altitude of gage is 3,310 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	June 1959	0.3	13
1960	Apr. 7, 1960	.26	11
1961	May 27, 1961	.27	12
1962	Apr. 25, 1962	•53	15
1963	May 6, 1963	•38	7
1964	May 21, 1964	1.05	a 50
1965	May 29, 1965	• 54	26
1966	April 1966	.20	a 10
1967	May 22, 1967	•34	10
1968	May 5, 1968	•32	10

204. Burke Gulch near Darby, Mont. (12-3443)

Location. -- Lat 46°02', long 114°09', in St sec.12, T.3 N., R.21 W., 1 mile upstream from mouth, 1t miles east of Darby.

Drainage area.--6.28 sq mi.

Records available .-- April 1958 to

Gage. -- Staff gage installed Apr. 16, 1958. Crest-stage gage installed July 21, 1959. Altitude of gage is 4,100 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1958	May 12, 1958	0.94	11
1959	May 16, 1959	tion tree	a 5
1960	Apr. 7, 1960	.85	8
1961	May 27, 1961	.40	2
1962	May 1962	(f)	a 4
1963	February 1963	1.08	13
1964	Apr. 21, 1964	•95	11
1965	Apr. 22, 1965	•95	7
1966	June 1966	• 59	3
1967	May 22, 1967	.84	8
1968	May 22, 1968	.80	8

a About.

f Peak discharge did not reach bottom of gage.

Location. -- Lat 46°09', long 114°13', in SW4 sec. 34, T.5 N., R.21 W., 8 miles southwest of Hamilton.

Drainage area. -- 6.01 sq mi.

Records available .-- April 1958 to

Gage. -- Staff gage installed Apr. 17, 1958. Crest-stage gage installed July 21, 1959. Altitude of gage is 4,000 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1958	May 20, 1958	2.52	240
1959	June 7, 1959	2.30	190
1960	June 4, 1960	2.65	265
1961	May 28, 1961	2.30	190
1962	June 25, 1962	2.06	80
1963	May 25, 1963	2.03	74
1964	June 26, 1964	2.15	120
1965	June 12, 1965	2.39	148
1966	May 6, 1966	2.07	102
1967	May 22, 1967	3.06	190
1968	June 2, 1968	2.72	108

206. Willow Creek near Corvallis, Mont. (12-3485)

Location. -- Lat 46°17'40", long 113°59'40", in SW4NE4 sec.8, T.6 N., R.19 W., 800 ft downstream from Butterfly ranger station, half a mile downstream from Horn ditch, and 6 miles southeast of Corvallis.

Drainage area. -- 22.4 sq mi.

Records available. -- April 1920 to May 1924 (no winter records), September 1957 to December 1965 (continuous record), January 1966 to Gage. -- Wire-weight gage. Crest-stage gage installed July 20, 1959. Altitude of gage is 4,130 ft (from topographic map).

Annual maximum	n data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1920	June 22, July 2	1.50	60
7.007	1920		1
1921	June 9, 1921 June 15, 1922 June 26, 1923 May 28, 1958	2.04	114
1922	June 15, 1922	2.20	130
1923 1958	June 20, 1923	1.80	d 92
1959	Tune 21 1050	2.70	102
1960	June 21, 1959 June 3, 1960 May 30, 1961 a June 13, 1962 June 21, 1963	2.56 2.60	99
1961	May 30, 1961	2.60	88
1962	a June 13, 1962	2.56 2.60	88
1963	June 21, 1963	2.60	106
1964	June 17, 1964	2.70 2.87	1111
1965	June 12, 1965		168
1966	May 28, 1966	1.39	61
1967	June 6, 1967	2.06	134
1960	June 2, 1968	1.81	106

a About.

d Maximum observed.

207. Gash Creek near Victor, Mont. (12-3502)

Location .- Lat 46°24', long 114°16', in W2 sec.32, T.8 N., R.21 W., 5 miles west of Victor.

Drainage area. -- 3.37 sq mi.

Records available. -- July 1958 to

Gage .-- Staff gage installed July 8, 1958. Crest-stage gage installed July 20, 1959. Altitude of gage is 5,500 ft (from topographic map).

Annual maximum	data		
Water year	_Date_	Gage height (ft)	Discharge (cfs)
1958	May 21, 1958	South Street	a 200
1959	June 5, 1959	1.58	160
1960	June 4, 1960	•75	80
1961	May 28, 1961	1.57	99
1962	June 25, 1962	1.26	47
1963	June 5, 1963	1.19	a 60
1964	June 26, 1964	1.36	_ 75
1965	June 12, 1965	1.81	165
1966	May 28, 1966	1.56	98
1967	June 6, 1967	2.02	200
1968	June 2, 1968	1.49	90

208. Kootenai Creek near Stevensville, Mont. (12-3505)

Location. -- Lat 46°32'30", long 114°10'00", in SW4NW4 sec. 18, T.9 N., R.20 W., 3 miles upstream from mouth and 4 miles northwest of Stevensville.

<u>Drainage area.--28.9</u> sq mi. <u>Records available.--December 1948 to September 1953, August 1957 to</u>

September 1963 (continuous record), October 1963 to Gage. -- Water-stage recorder. Altitude of gage is 3,780 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1948	May-June 1948	tion care	1,250
1949	May 16, 19 ¹ +9	5.11	980
1950	June 17, 1950	5.85	1,300
1951	June 15, 1951	4.36	654
1952	June 6, 1952	3.76	381
1953	June 13, 1953	3.99	490
1958	May 24, 1958	5.63	1,080
1959	June 13, 1959	2.39	1,020
1960	June 16, 1960	5.30	990
1961	June 4, 1961	4.29	630
1962	June 16, 1962 June 5, 1963	T • 73	550
1903	Tune 8 1064	1, 29	700
1965	June 8, 1964 June 12, 1965	4.82	790
1966	May 27, 1966	4 27	535
1967	June 6, 1967	5.14	616
1968	June 2, 1968	4.58	660
1900	ouile 2, 1900	1.00	300

209. Burnt Fork Creek near Stevensville, Mont. (12-3510)

Location .-- Lat 46°27'50", long 113°56'40", in NW sec. 11, T.8 N., R.19 W., 150 ft upstream from county road bridge and 8 miles southeast of Stevensville.

Drainage area. -- 74.0 sq mi.

Records available .-- May to November 1920, April 1922 to September 1924 (no winter records), April to June 1938, October 1938 to September 1962 (continuous record), October 1962 to Gage. -- Staff gage. Crest-stage gage installed July 1959. Altitude of gage is 4,270 ft (from topographic map).

Annual maximum data. --

Water year Date Gage height (ft) Discharge (cfs) 1920 June 16, 1920 2.16 d 347 1922 June 10, 1922 2.64 d 620 1923 June 19, 1923 1.92 d 276	Annual maximum	data		
1924 May 18, 1924 1.90 d 268 1938 May 28, 1938 2.92 d 641 1939 May 4, 1939 1.74 d 192 1940 May 25, 1940 1.40 d 121 1941 June 4, 1941 1.36 d 119 1942 May 26, 1942 2.12 d 371 1943 June 19, 1943 2.04 d 382 1944 June 19, 1944 1.50 d 183 1945 June 19, 1945 1.40 d 139 1946 May 28, 1946 1.43 d 142 1947 May 8, 9, 1947 2.20 d 414 1948 May 28, 29, 1948 2.54 d 565 1949 May 17, 1949 2.05 d 310 1950 June 21, 1950 2.22 d 379 1951 May 24, 1951 2.16 d 361 1952 May 26, 1952 1.86 d 233 1953 June 13, 1953 2.19 d 351 1954 June 28, 1954 2.09 d 300 1955 June 13, 1953 2.19 d 351 1955 June 15, 1955 3.28 d 284 1956 May 24, 1956 3.72 d 414 1957 June 3, 4, 1956 3.72 d 414 1957 June 3, 4, 1957 3.46 d 320 1958 May 21, 22, 1958 3.48 d 371 1959 June 14, 1959 h 310 1960 June 5, 1960 3.24 1961 June 4, 1961 3.62 1962 June 14, 1963 3.35 1964 June 8, 1964 4.73 720 1965 June 12, 1965 4.19 1966 May 27, 1966 3.15 1966 May 27, 1966 3.15 1967 May 23, 1967 5.82 1,100 1968 June 2, 1968 3.48	Water year 1920 1922 1923 1924 1938 19340 199441 199442 199445 199445 199450 19955 19955 19955 19955 199661 199661 199667	Date June 16, 1920 June 19, 1923 May 18, 1924 May 28, 1938 May 4, 1939 May 25, 1940 June 4, 1941 May 26, 1942 June 19, 1943 June 19, 1945 May 28, 1946 May 8, 9, 1947 May 28, 1946 May 28, 1951 May 28, 1952 June 21, 1950 May 24, 1951 May 26, 1952 June 13, 1953 June 28, 1955 May 24, 1955 May 24, 1955 May 24, 1956 June 3, 4, 1957 May 21, 22, 1958 June 14, 1962 June 5, 1966 June 19, 1966 May 23, 1967	2.16 42.99 2.99 1.99 2.97 1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30	dddddddddddddddddddddddddddddddddddddd

d Maximum observed.

h Maximum daily.

210. Eightmile Creek near Florence, Mont. (12-3514)

Location. -- Lat 46°39'10", long 113°57'30", in SW\(\frac{1}{4}\)SW\(\frac{1}{4}\) sec.2, T.10 N., R.19 W., O.6 mile upstream from Granite Creek, 5 miles upstream from mouth, and 6 miles east of Florence.

Drainage area. -- 20.6 sq mi.

Records available. -- September 1957 to September 1963 (continuous record), October 1963 to

Gage. -- Water-stage recorder prior to October 1963. Crest-stage gage installed October 1963. Altitude of gage is 3,800 ft (from topographic map).

Annual maximum data			
Water year	Date	Gage height (1	ft) Discharge (cfs)
	lay 13, 1958	2.72	62
1959 J	une 6, 1959	2.06	33
1960 A	pr. 10, 1960	2.03	30
1961 M	lay 30, 1961	2.19	38
	lay 25, 1962	2.27	36
	lay 26, 1963	1.98	26
	une 8, 1964	3.60	104
1965 M	lay 12, 1965	3.63	75
1966 M	lar. 27, 1966	3.28	57
	June 6, 1967	2.89	57
1968 M	fay 5, 1968	2.33	33

211. Hayes Creek near Missoula, Mont. (12-3522)

Location. -- Lat 46°49', long 114°06', in center sec. 10, T.12 N., R. 20 W., at culvert on U. S. Highways 12 and 93, 2 miles southwest of Missoula.

Drainage area. -- 4.16 sq mi.

Records available .-- June 1959 to

Gage. -- Crest-stage gage installed June 19, 1959. Altitude of gage is 3,300 ft (from topographic map).

Annual maximum	<u>data</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	(k)	0.6	3
1960	Apr. 5, 1960	3.77	56
1961	May 27, 1961	•70	4.
1962	Apr. 24, 1962	1.34	74
1963	Mar. 22, 1963	• 58	3
1964	May 22, 1964	1.63	21
1965	May 12, 1965	2.45	29
1966	Mar. 30, 1966	• 52	2
1967		una una	Unknown
1968	May 5, 1968	12	5
	•		

k Peak flow occurred sometime during period May-June.

212. Nigger Gulch near Alberton, Mont. (12-3534)

Location. -- Lat 47°01', long 114°32', in NW sec.33, T.15 N., R.23 W., at culvert on county road, 2.6 miles west of Alberton.

Drainage area. -- 8.02 sq mi. Records available .-- June 1959 to

Gage. -- Crest-stage gage installed June 19, 1959. Altitude of gage is 3,000 ft (from topographic map).

Annual maximum	data		
Water year	Date .	Gage height (ft)	Discharge (cfs)
1959	(k)	0.7	23
1960	Apr. 6, 1960	.80	27
1961	May 2, 1961	•74	24
1962	May 29, 1962	• 54	16
1963	May 6, 1963	• 59	18
1964	June 9, 1964	1.01	67
1965	Apr. 28, 1965	2.05	170
1966	Mar. 30, 1966	•\ + 5	20
1967	May 11, 1967	• 47	21
1968	May 5, 1968	.28	8

213. Flat Creek near Superior, Mont. (12-3537)

Location .-- Lat 47°13', long 114°53', in NW4 sec.23, T.17 N., R.26 W., at culvert on county road, 2 miles north of Superior.

Drainage area. -- 13.0 sq mi.

Records available. -- July 1959 to May 1961 (discontinued). Gage. -- Crest-stage gage installed July 3, 1959.

AIIIUAL MAXIMUM	ua ta •		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	Apr. 6, 1960	0.31	Unknown
1961			Unknown

214. Thompson Creek near Superior, Mont. (12-3538)

Location .-- Lat 47°12', long 114°55', in SW sec. 28, T.17 N., R.26 W., 14 miles west of Superior.

Drainage area. -- 12.2 sq mi.

Records available .-- May 1961 to

Gage. -- Crest-stage gage installed May 15, 1961. Altitude of gage

is 2,710 ft (from topographic map).

Annual maximum data	
Water year Date Gage height (ft) Discharg	e (cfs)
1961 May 26, 1961 0.53 a 5	5
1962 Apr. 24, 1962 .82 8	5
1963 Apr. 14, 1963 .15 2	.0
1964 May 21, 1964 .53 7	9
1965 Apr. 14, 1965 3.0	0
1966 May 4, 1966 .09	4
1967 May 22, 1967 .57 8	0
1968 May 22, 196884 21	+

215. East Fork Timber Creek near Haugan, Mont. (12-3538.5)

Location .-- Lat 47°25', long 115°25', in NE 4 sec. 16, T.19 N., R.30 W., at culvert on county road 2 miles north of Haugan.

Drainage area. -- 2.72 sq mi. Records available .-- May 1961 to

Gage. -- Crest-stage gage installed May 15, 1961. Altitude of gage is 3,350 ft (from topographic map).

Annual maximum	data		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1961	May 2, 1961	0.38	23
1962	Apr. 15, 1962	.82	45
1963	Apr. 14, 1963	•33	20
1964	May 22, 1964	.87	<i>j</i> +O
1965	Apr. 14, 1965	1.46	66
1966	Apr. 6, 1966	.48	.27
1967	May 22, 1967	.67	42
1968	May 5, 1968	•23	15

216. St. Regis River tributary near St. Regis, Mont. (12-3539)

Location. -- Lat 47°19', long 115°13', in NW sec.19, T.18 N., R.28 W., at culvert on Interstate Highway 90 and U. S. Highway 10, 6 miles west of St. Regis.

Drainage area. -- 1.16 sq mi.

Records available .-- July 1959 to May 1961 (discontinued).

Gage. -- Crest-stage gage installed July 3, 1959.
Annual maximum data. --

TITIERGE MARKETING	aa aa aa		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1959	(k)	0.5	Unknown
1960	May 9, 1960	.28	Unknown
1961			Unknown

217. North Fork Little Joe Creek near St. Regis, Mont. (12-3541)

Location. -- Lat 47°16', long 115°09', in SW\(\frac{1}{4}\)SE\(\frac{1}{4}\) sec.3\(\frac{1}{4}\), T.18 N., R.28 W., at bridge on county road, 3 miles southwest of St. Regis.

Drainage area. -- 14.7 sq mi.

Records available .-- July 1959 to

Gage.--Crest-stage gage installed July 3, 1959. Altitude of gage is 2,850 ft (from topographic map).

AITHUAL MAXIMUM	<u>uava</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	May 12, 1960	1.84	179
1961	May 26, 1961	1.88	185
1962	May 27, 1962	1.16	91
1963	May 28, 1963	• 95	57
1964	May 28, 1963 June 8, 1964	1.91	212
1965	May 29, 1965	1.83	200
1966	May 5, 1966	1.60	147
1967	May 22, 1967	1.61	195
1968	May 22, 1968	•79	102
1,00	1103 229 2700	*17	

218. Skyland Creek near Essex, Mont. (12-3560)

Location. -- Lat 48°17'30", long 113°23'10", in SE4NW4 sec.9, T.29 N., R.14 W., 10 miles northeast of Essex.

Drainage area. -- 8.09 sq mi.

Annual maximum data .--

Records available. -- January 1946 to September 1952 (continuous record), 1954, June 1959 to

Gage.--Water-stage recorder re-installed June 30, 1959, destroyed June 8, 1964. Crest-stage gage installed Sept. 10, 1964. Datum of gage is 4,835.83 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

AITHUAL MAXIMUM (<u> 1a ta • </u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1946	May 28, 1946	1.72	117
1947	May 9, 1947	1.84	189
1948	May 22, 1948	2.15	284
1949	May 16, 1949	1.68	126
1950	June 12, 1950	2.46	268
1951	June 15, 1951	2.05	179
1952	May 15, 1952	1.87	148
1954	May 19, 1954	2.3	230
1959	June 5, 1959	2.1	189
1960	June 3, 1960	2.00	169
1961	May 30, 1961 May 29, 1962	2.48	267
1962	May 29, 1962	1.58	93
1963	June 5, 1963	1.52	82
1964	June 8, 1964	9.55	3,580
1965	May 29, 1965	4.76	a 120
1966	May 26, 1966	4,•30	11+0
1967	June 1967	(f)	<100
1968	May 23, 1968	3.62	90

a About.

f Peak discharge did not reach bottom of gage.

219. Moccasin Creek near West Glacier, Mont. (12-3573)

Location. -- Lat 48°29', long 113°51', in SE4 sec.35, T.32 N., R.18 W., at culvert on U. S. Highway 2, 62 miles east of West Glacier.

<u>Drainage area.--1.97</u> sq mi. <u>Records available.--</u>June 1959 to

Gage. -- Crest-stage gage installed June 30, 1959. Altitude of gage is 3,300 ft (from topographic map).

Annual maximum	data		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1959	(k)	1.3	102
1960	June 3, 1960	1.29	120
1961	May 27, 1961	1.43	105
1962	Apr. 24, 1962	1.17	50
1963	May 25, 1963	1.15	48
1964	June 8, 1964	tro tro	Not determined
1965	May 29, 1965	5.60	Not determined
1966	May 26, 1966	4.11	Not determined
1967	June 6, 1967	3.96	Not determined
1968	May 23, 1968	3.49	115

220. Middle Fork Flathead River tributary at West Glacier, Mont. (12-3574)

Location. -- Lat 48°30', long 113°58', in NE sec. 36, T.32 N., R.19 W., at culvert on U. S. Highway 2, 0.9 mile east of West Glacier.

Drainage area. -- 0.10 sq mi.
Records available. -- June 1959 to

Gage.--Crest-stage gage installed June 30, 1959. Altitude of gage is 3,250 ft (from topographic map).

Annual maximum data.--

Allitual maximum	<u>uata</u>		
Water year	Date	Gage height (ft)	Discharge (cfs)
1960	Apr. 3, 1960	0.27	3
1961	May 2, 1961	.19	2
1962	Apr. 23, 1962	.11	1
1963	tion com	(f)	<. 5
1964	June 8, 1964	•32	a 8
1965	Apr. 21, 1965	.49	9
1966	June 4, 1966	• 1+0	6
1967	June 6, 1967	•27	3
1968	May 24, 1968	•09	1

a About.

f Peak discharge did not reach bottom of gage.

k Peak flow occurred sometime during period May-June.

221. Spring Creek near Stryker, Mont. (12-3638)

Location. -- Lat 48°38', long 114°41', in N2 sec.15, T.33 N., R.24 W., at culvert on U. S. Highway 93, 5 miles southeast of Stryker.

Drainage area. -- 3.86 sq mi.

Records available .-- July 1959 to May 1961 (discontinued).

Gage. -- Crest-stage gage installed July 1, 1959. Altitude of gage is 3,260 ft (from topographic map).

Annual maximum data .--

illingt maximum	ua va •		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1959	(k)	0.7	12
1960	June 3, 1960	08	8
1961	May 15, 1961	.62	10

222. Rock Creek near Olney, Mont. (12-3639)

Location. -- Lat 48°37', long 114°39', in NW sec. 24, T.33 N., R.24 W., at culvert on U.S. Highway 93, 6 miles northwest of Olney.

Drainage area. -- 6.18 sq mi.

Records available .-- May 1961 to

Gage. -- Crest-stage gage installed May 16, 1961. Altitude of gage is 3,240 ft (from topographic map).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1961	e May 15, 1961	a 1.2	24
1962	May 21, 1962	.82	13
1963	May 14, 1963	•56	6
1964	May 2, 1964	1.29	25
1965	Apr. 28, 1965	1.40	29
1966	June 4, 1966	• 9.6	14
1967	May 24, 1967	. 74	13
1968	May 24, 1968	• 55	9
1968	May 24, 1968	• 55	9

a About.

e Prior to installation of gage.

k Peak flow occurred sometime during period May-June.

223. Dayton Creek near Proctor, Mont. (12-3705)

Location .- Lat 47°55', long 114°20', in NW4 sec. 20, T.25 N., R.21 W., at culvert on county road, 2½ miles northwest of Proctor.

Drainage area .-- 20.9 sq mi.

Records available. -- June 1959 to Gage. -- Crest-stage gage installed June 18, 1959. Altitude of gage is 3,350 ft (from topographic map).

Ammual maximum	uata		
Water year	Date	Gage height (ft)	Discharge (cfs)
1959	(k)	1.3	37
1960	May 12, 1960	1.74	51
1961	May 27, 1961	3.00	93
1962	Apr. 24, 1962	1.54	45
1963	Apr. 13, 1963	•28	7
1964	June 8, 1964	1.06	29
1965	Apr. 15, 1965	5.09	131
1966	Mar. 29, 1966	1.03	28
1967	May 22, 1967	2.16 (correc	eted) 60
1968	May 14, 1968	.88	22

224. Teepee Creek near Polson, Mont. (12-3709)

Location. -- Lat 47°49', long ll4°01', in SW4 sec.23, T.24 N., R.19 W., at culvert on State Highway 35, 11 miles northeast of Polson. Drainage area. -- 2.55 sq mi.

Records available. -- June 1959 to Gage. -- Crest-stage gage installed June 29, 1959. Altitude of gage is 2,910 ft (from topographic map).

Ann	ual maximum	data		
	Water year	Date	Gage height (ft)	<u>Discharge (cfs)</u>
	1960	June 3, 1960	0.48	11
	1961	June 2, 1961	• 90	22
	1962	Apr. 24, 1962	.05	<u>L</u> į.
	1963		(f)	<1
	1964	June 8, 1964	2.15	74-74
	1965	June 12, 1965	•32	8
	1966	May 26, 1966	.18	6
	1967	June 6, 1967	•30	8
	1968	May 22, 1968	.17	6

f Peak discharge did not reach bottom of gage. k Peak flow occurred sometime during period May-June.

225. Hell Roaring Creek near Polson, Mont. (12-3711)

Location. -- Lat 47°42', long 114°03', in NW sec.4, T.22 N., R.19 W., at power house, 5½ miles east of Polson.

Drainage area. --6.41 sq mi.

Records available. -- May 1917 to September 1932 (continuous record), June 1959 to September 1967 (discontinued). Prior to 1959, published as Big Creek near Polson.

Gage .-- Crest-stage gage installed June 29, 1959. May 1917 to September 1932, water-stage recorder. Altitude of gage is 3,150 ft

(by barometer).

Annual maximum	data		
Water year	Date	Gage height (ft)	Discharge (cfs)
1917	June 9, 1917	em em	d 104
1918	June 11-14, 19	18	3 8 69
1919	May 27, 1919		
1920	May 14, 1920	-	29.4
1921	June 7, 1921	one one	23·3 49
1922	May 20, 1922	em mo	49
1923	May 20, 1922 June 22, 1923	gree gree	29.7
1924	May 17, 1924		27.2 61 34 61
1925	May 22, 1925		61
1926	May 1, 1926		34
-/-1	June 11, 1927		61
1928	May 23, 1928		39.5
1929	May 25, 1929		33.3
1930	May 25, 1930	quan desir	14.1
1931	Dec. 1, 1930		h 8.3
1932 1948	Mar. 19, 1932		h 9.0
1948	May 1948		85
1959	e May 1959	a 1.3	60
1960	June 3, 1960	.81	27 34
1961	June 2, 1961	•,93	34
1962	Apr. 24, 1962	.49	12 5 98
1963	Apr. 15, 1963 June 8, 1964 June 12, 1965	.28	2
1964	June 8, 1964	1.73	98
1965	June 12, 1965	7 5).	a 20
1966	March 1966	-1.54	6 (revised)
1967	June 1967	-1.34	9

a About.

d Maximum observed.

e Prior to installation of gage.

h Maximum daily.

226. Mill Creek near Niarada, Mont. (12-3743)

Location. -- Lat 47°50', long 114°41', in NE sec. 20, T.24 N., R.24 W., at bridge on county road, 3½ miles northwest of Niarada.

Drainage area. -- 28.0 sq mi.

Records available .-- June 1959 to

Gage. -- Crest-stage gage installed June 18, 1959. Altitude of gage is 3,000 ft (from topographic map).

Annual maximum	data		
Water year	Date	<u>Gage height (ft)</u>	Discharge (cfs)
1959	(k)	1.1	90
1960	May 13, 1960	1.00	74
1961	May 1, 1961	1.42	140
1962	Apr. 24, 1962	•97	70
1963	May 17, 1963	.78	45
1964	May 27, 1964	.91	52
1965	Apr. 15, 1965	1.43	175
1966	May 12, 1966	2.22	a 250
1967	May 25, 1967	1.40	138
1968	May 22, 1968	.69	30

227. Sullivan Creek tributary near Niarada, Mont. (12-3747)

Location. -- Lat 47°53', long 114°34', in N2 sec.33, T.25 N., R.23 W., at culvert on county road, 5 miles northeast of Niarada.

Drainage area. -Records available. -- June 1959 to May 1961 (discontinued).

Gage. -- Crest-stage gage installed June 18, 1959.

ATTITUDE THOUGHT	a a o a		
Water year	<u>Date</u>	Gage height (ft)	Discharge (cfs)
1960	March 1960	time time	a l
1961	time times	NAME (1986)	Unknown

a About.

k Peak flow occurred sometime during period May-June.

228. Garden Creek near Hot Springs, Mont. (12-3757) (formerly published as South Fork Garden Creek near Hot Springs)

Location. -- Lat 47°39', long 114°43', in SW1 sec.20, T.22 N., R.24 W., at bridge on county road, 3 miles north of Hot Springs.

Drainage area. -- 3.29 sq mi.

Records available. -- June 1959 to Gage. -- Crest-stage gage installed June 18, 1959. Altitude of gage is 3,300 ft (from topographic map).

Annual maximum	data		
Water Year	Data	Gage height (ft)	Discharge (cfs)
1959	(k)	em eus	a 10
1960	April 1960	en en	a 5
1961	May 27, 1961	0.86	29
1962	May 23, 1962	•48	14
1963	May 17, 1963	•73	24
1964	May 27, 1964	1.02	a 45
1965	Apr. 29, 1965	que en	a 100
1966	Mar. 29, 1966	22	16
1967	May 23, 1967	.16	1 +0
1968	May 1968	30	12

a About.

k Peak flow occurred sometime during period May-June

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EXPLANATION

Gaging Stations

7

Crest-stage, in cooperation with Montana State Highway Commission
81

Crest-stage, in cooperation with Montana State Water Resources Board

_5

Recording, in cooperation with Montana State Highway Commission
Numbers correspond with numerical listing in station data section
Parentheses around numbers mean the station is discontinued

Drainage divide between principal river basins

6

Part number of geographical division of principal river basin as used in U. S. Geological Survey Water-Supply Papers

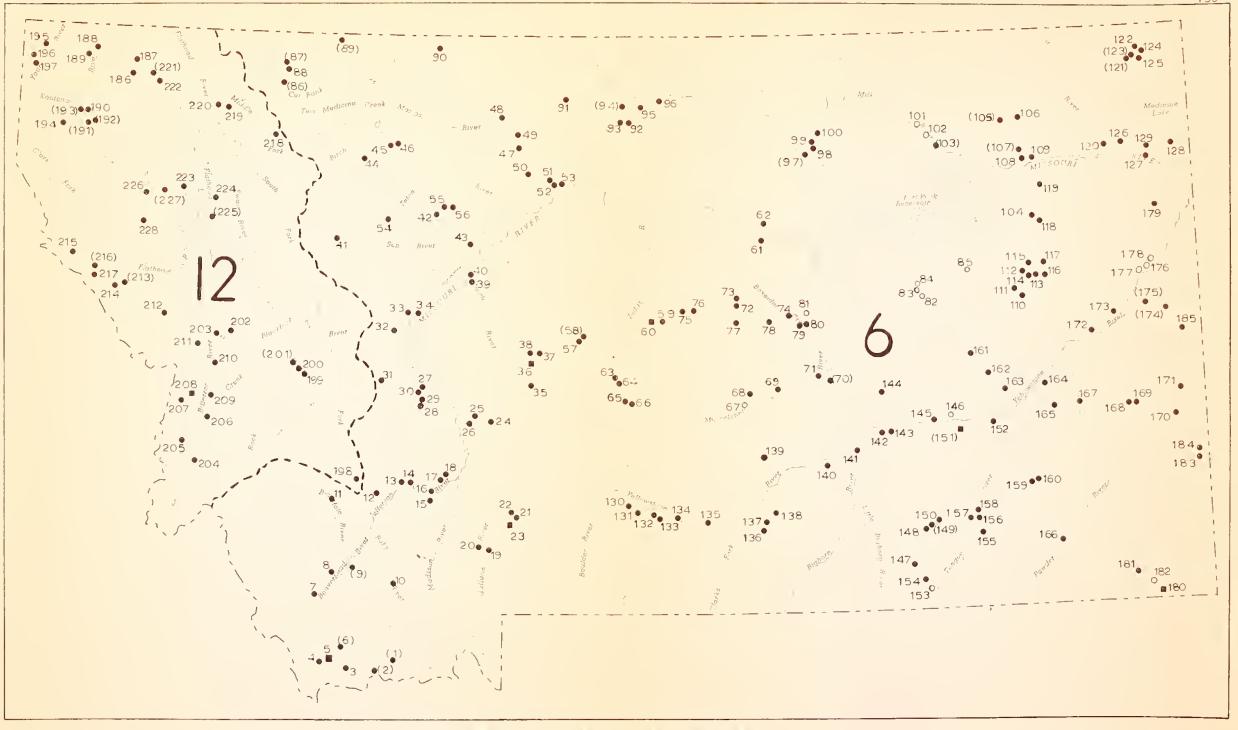


Figure 1 .-- Map showing location of gaging stations.

